

Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.

SECTOR 3 — CHART INFORMATION

SECTOR 3

AUSTRALIA—COASTS OF TASMANIA

Plan.—This sector describes the coasts of Tasmania beginning with the N coast from E to W, followed by the W coast from N to S, and the E coast from S to N.

General Remarks

3.1 Tasmania is the most thoroughly mountainous island on the globe, being one continuous series of mountains, valleys, peaks, and glens. The highest mountains just exceed 1,524m. The S and W parts of the island are particularly remarkable for bold and commanding scenery. The coast, which is rocky and bold in its outlines, is broken by numerous inlets, many of which constitute good natural harbors. Rivers are numerous, and a few of them are navigable for a portion of their course. There are also several mountain lakes near the sources of the rivers; the largest, Great Lake, 1,164m above the sea, is about 12 miles long, and has an area of 11,200 hectares.

The whole N coast lies generally in very smooth water, with the prevailing winds being off the land and the long SW swell outside being interrupted by the islands at the W entrance of the strait.

The W coast of Tasmania is mostly rocky, of sterile aspect, with reefs fronting it to the distance of 3 or 4 miles in some places and a heavy swell usually rolling in upon it from the SW. The prevailing winds are from the same quarter and bring much bad weather, especially in the winter months of June, July, and August.

The S coast of Tasmania is rugged, abrupt, and barren. Some small islands lie from 3 to 12 miles off it. The projecting heads of land are supported by basaltic columns, like the Giants Causeway of Ireland, and it is without any known places of shelter from onshore winds, although it contains two or three sandy bays.

The E coast of Tasmania extends about 133 miles N from Cape Pillar to Eddystone Point. It contains numerous indentations, although few provide good anchorage. Mariners are cautioned that the inshore waters off the E coast of Tasmania have not been surveyed and less water than charted may exist.

Winds—Weather.—The climate, though differing in the E and W portions, the former being dry and the latter very wet, is generally favorable. Although the hot N winds of Australia do occasionally reach the island, they are greatly subdued in temperature by their passage over Bass Strait. The climate possesses the full summer heat due to its latitude, but the nights are always cool and refreshing.

The mean temperature at Hobart is 12°C. The maximum temperature of Hobart in summer is 41°C, which is rarely reached; in winter, it seldom falls below -2°C, though in the uplands it often falls to -8°C, producing ice of considerable thickness. The rainfall at Hobart averages 600mm annually, at Launceston it averages 700mm, and at Macquarie Harbor, on the W coast, the average is over 2,500mm. This area of the coast is very windy and often violent, but thunderstorms are rare.

The signs of the approach of a W gale on the S coast of Australia are so well marked that no vessel need encounter one unprepared. From May to October, if the barometer falls rapidly below standard atmospheric pressure, with a fresh and gusty N wind and heavy storm clouds gathering to the NW, a W gale is approaching. The N wind is usually light as the sky to the NW becomes overcast and the wind then shifts to NW in a heavy squall. In the lull before this squall, St. Elmo's fire is often seen on the ironwork of the masts and yards.

When the barometer rises and the wind shifts to the W and SW, the weather will begin to clear when the winds are well S of SW. Frequently the barometer remains nearly stationary or falls as the gales set in, and the force of the wind remains high for a week or 10 days, though the average of these winter gales is 3 to 4 days.

The months of October, November, and December have occasionally settled weather, with a preponderance of SE winds, though the W gales of October are frequently as severe as those experienced during the winter. An occasional gale is likely to be experienced in November, may be experienced in December, and sometimes, but rarely, may be experienced in the early months of the year.

The force of the SE wind in summer has been known to increase to a strong gale, about 48 hours in duration, which raises a very irregular cross sea as the constant SW swell does not subside with the SE wind. The gales are accompanied by a red haze and the barometer remains steady, but below average pressure for the time of year. The wind continues from the SE while the gale lasts, not changing its direction seaward or landward as in good weather. These gales are infrequent.

Fog is extremely rare on the S coast of Australia; the haze which comes with the sea breeze in the summer is occasionally sufficient to reduce visibility to a distance of 3 or 4 miles.

The prevailing winds on the W coast of Tasmania are from the SW and are accompanied by foul weather, particularly in the months of June, July, and August. Northwest and W gales are frequent.

In the bight of the N coast of Tasmania, between Circular Head and Cape Portland, there is almost a constant current to the E during the greater part of the year.

On the E coast, the set is generally to the S. On the W coast, the current generally sets to the N, particularly during the prevalence of SW and S winds.

Ice.—In addition to the severity of the climate which may be experienced in high latitudes, there is the danger of disrupted masses of ice and icebergs. The absence of these dangers can not be relied upon in any season of the year, they are, however, rarely encountered N of latitude 40°S. Between 40° and 45°S icebergs have been occasionally met with as far as 65°E; at 45°S as far as 135°E; and at 50°S as far as 140°E. Icebergs are seldom sighted between the meridians of 130°E and 170°W along the shipping routes.

Southeast of the Cape of Good Hope, midway between Ker-guelen Island and the meridian of Cape Leeuwin, and midway

between New Zealand and Cape Horn, icebergs are most numerous. The periods of maximum and minimum frequency vary. It may also happen that while icebergs are being reported in the lower latitudes, the ocean in the higher latitudes is free of ice.

The dimensions of many of the ocean icebergs are remarkable. Icebergs of 5 to 20 miles in length are frequently sighted S of the 40th parallel and icebergs of 20 to 50 miles in length are not uncommon. As many as 4,500 bergs have been reported in a run of 2,000 miles, some with heights of 245 to 520m and lengths of 6 to 82 miles.

Eddystone Point to Port Dalrymple

3.2 Eddystone Point (41°00'S., 148°21'E.), 25m high, forms the N point of Bay of Fires. The point is reported to give a good radar return up to 18 miles.

The coast from Eddystone Point trends NW 10 miles to Cape Naturaliste, with several small points and bays between. Off the points are numerous granite boulders, some of which are 6.1m high.

Cape Naturaliste (40°51'S., 148°13'E.), 22m high, is faced by sand cliffs, but the coast about it is lower than that of Eddystone Point.

Mount Cameron, Mount William, and Bayley's Hill are the only remarkable hills in this vicinity. The highest peak of Mount Cameron lies 18 miles W of Eddystone Point. It is one of several peaks and the summit is conical; the ridge, of which Mount Cameron is the highest part, is over 3 miles in length in a NE-SW direction. Mount William, 9 miles NW of Eddystone Point, rises gradually to a rounded summit. Bayley's Hill, about 5 miles W of Eddystone Point, is broad and flat-topped.

George Rocks, a group of granite boulders, the highest of which is 20m, lies 4 miles NNW of Eddystone Point. These rocks occupy a space of 1.5 miles and, with the exception of the largest two, are quite barren. Scattered through the group are a few rocks that dry, but most of the rocks are from 3 to 9.1m high.

Caution.—Passage between George Rocks and the mainland is not recommended, due to the presence of above and below-water rocks scattered in the vicinity of George Rocks.

Eucalyptus Rock, which rarely breaks, lies about 8 miles NNW of Eddystone Point. Salamander Rock lies about 3.5 miles ENE of Eucalyptus Rock. No distinct break has been seen on this rock. The rock lies in the direct track of vessels plying between Melbourne and Hobart.

A depth of 27.4m has been reported to lie about 4.8 miles E of Salamander Rock.

Anchorage.—Musselroe Bay (40°49'S., 148°09'E.) affords good anchorage, in about 12m, about 1 mile NW of Cockle Bank (40°48'S., 148°11'E.).

Caution.—It is recommended that vessels unfamiliar with this area keep at least 3 miles outside Salamander Rock when proceeding to or from Banks Strait.

3.3 Swan Island (40°44'S., 148°06'E.) is of gray granite, but sand hills covering the granite give it the appearance of being nearly all sand. Swan Island Light is obscured from the SW.

Tides—Currents.—Spring tides rise 2m. The flood current sets to the NW; the ebb current sets to the SE at a velocity of 3 knots at spring tides, influenced however, by the wind.

Anchorage.—Anchorage can be taken off a small sandy bay on the SE side of Swan Island. The bottom is rock, or sand over rock; the holding ground is bad. It is not advisable to anchor at Swan Island if W gales are expected, as it is not uncommon for the wind to shift to the SE.

Caution.—Due to the strength of the tidal currents, vessels using the passage between Swan Island and the mainland should give a wide berth to the foul ground on each side.

3.4 Banks Strait, which separates the Furneaux Group from Tasmania, may be said to extend between Goose Island to the NW and Eddystone Point to the SE.

In the strait, with a head wind, it is generally impossible for sailing vessels to work to the W during the ebb current; the custom is to anchor either under Swan Island or in Musselroe Bay. Occasionally, small vessels anchor off the Little Musselroe River, the water there being shallower.

Numerous unmarked shoals frequent the NE coast of Tasmania, and the navigation of Banks Strait consequently requires care. The bottom consists of sand and in some parts rocks.

Winds—Weather.—During the survey of Banks Strait, the heaviest and most frequent gales (generally from the W) were experienced in the months of September, October, and November.

On the termination of a W gale, the wind in the vicinity of Banks Strait sometimes shifts to the SW, the barometer reading a little above 1003mb. The wind seldom blows home with much strength, but sufficiently so, with the swell rolling in simultaneously to necessitate leaving the anchorages, which are open to the SE. All anchorages in Banks Strait which are exposed to the SE require great caution in their use, owing to the uncertain nature of the winds.

Tides—Currents.—The flood current is the W current and the ebb the E; the currents are each of 6 hours 12 minutes duration at springs; but during neaps the flood runs 7 hours and the ebb 5 hours 30 minutes.

In the narrowest part of the strait (8.5 miles wide), between the Swan Islands and Clarke Island, the tidal currents run at the velocity of 3 knots at springs; W winds accelerate the E current, which occasionally attains a velocity of 5 or 6 knots.

At springs, in the middle of Banks Strait, the E is the stronger of the tidal currents. At such times, either current, when opposed to the wind, causes a high topping sea, somewhat dangerous for small craft.

3.5 Cape Portland (40°44'S., 147°56'E.) is low and rocky. Anchorage with holding ground reported good, is available in Foster Inlet. The anchorage in the lee of Maclean Island provides excellent protection in E gales.

The best channel into the bay is between Cape Portland and the shoal area extending N from Maclean Island. There are no dangers in the approach, but a careful watch should be kept on the vessel until past Cape Portland owing to the strong tidal currents in this vicinity. On one occasion during a survey, the strength of the current was observed to be 5.5 knots, setting in a NE direction. This causes very dangerous overfalls and tide

rips. The tidal currents inside the inlet are weak, seldom running at more than 0.5 knot.

The rocks N of Maclean Island, which dry at LW, are nearly always visible as they usually break.

Waterhouse Point (40°49'S., 147°40'E.) is the rocky termination of a range of hills descending from Hardwicks Hill, about 3.2 miles SW. The point has a reef of rocks, pinnacles of which dry at low water, projecting 0.3 mile to the N.

The coast from Waterhouse Point trends SW 1.5 miles to a small point abreast Little Waterhouse Island. This part of the coast has a sandy beach, with numerous dry and sunken rocks extending 0.3 mile from the shore.

Waterhouse Island, about 1.7 miles W of Waterhouse Point, has an even summit, and falls gradually at its N end. In some parts there are a few trees, but the island is nearly cleared of timber.

Tides—Currents.—Spring tides rise 2.4m. The flood is the W current, and its velocity about 2 knots at the anchorage.

Anchorage.—The anchorage between Waterhouse Island and Waterhouse Point, on the E side of the island, is a safe and useful anchorage, affording shelter from E or W gales. Anchor as convenient in the channel, either near the SW end in 9.1m, about 0.3 mile off the only sandy beach on the SE side of the island, or in the N part of the channel, over a sandy bottom, in about the same depth, near a patch of 5.5m, with Croppies Point (40°49'S., 147°36'E.) over the W extremity of Little Waterhouse Island, bearing 223°.

The N entrance to the anchorage is encumbered by shoals of 4.2 to 6.4m, and by the bank extending 0.5 mile E from Waterhouse Island.

3.6 Papanui Rock is a rocky patch about 0.5 mile in extent, located about 3.7 miles NW of the N extremity of Waterhouse Island. It has a depth of 2.7m over its shallowest part, with 25.6 to 34.7m close around it.

South Croppies Point lies nearly 1 mile SSW of Croppies Point, with two small points and exposed sandy bays between. Croppie Rock, with a depth of 3.3m, lies 0.5 mile bearing 307° from South Croppies Point.

About 2.2 miles SW of South Croppies Point is a rock 2.7m above HW, and about 0.5 mile further in the same direction a rock 0.6m above HW. These rocks are about 1 mile offshore.

From South Croppies Point, the coast, a sandy beach backed by sand hills which attain an elevation of 43m, trends in a SW direction for about 11.5 miles to the head of **Anderson Bay** (40°57'S., 147°27'E.), where the Great Forester River and the Brid River discharge themselves into the sea. The coast then trends in a NW direction for about 5 miles to East Sandy Point, being of a rocky and broken nature.

The mouth of the Great Forester River is blocked by a sandy bar, which dries at LWS. The outermost rocks in this vicinity are always above water.

Southern Cross Reef, with a least depth of 1.8m and which is steep-to on the N side, lies nearly in the middle of the bay.

Anchorage.—Anderson Bay generally affords shelter only with S winds, but fair shelter has been obtained in W gales, 0.5 mile SE of East Sandy Point, in 9m, sand, good holding ground. In approaching this anchorage care must be taken to avoid a rocky ledge projecting from a point located about 1

mile SE of East Sandy Point, and the reef near the center of the bay, mentioned above.

East Sandy Point (40°56'S., 147°21'E.) is formed by a long low ridge extending in a N direction from the high ground inland. The cape terminates in a conspicuous sand hill, 38m high, which shows a bare face to seaward except in a W direction. A ledge of rocks, which covers and uncovers, with no outlying dangers, stretches 0.2 mile N from the cape.

West Sandy Point, about 3 miles W of East Sandy Point, is formed by a series of low sand hills fronted by shelving rocks.

Caution.—A rocky patch, which breaks heavily in bad weather and has a depth of less than 1.8m at LW, lies 0.8 mile N of West Sandy Point. Two miles W of the point, Flat Rocks Reef, detached ledges which mostly cover at about three-quarter flood, extend 1 mile from the shore. The soundings off this coast are irregular and it should not be approached nearer than 2.5 miles.

3.7 Ninth Island (40°50'S., 147°16'E.) is flat-topped, devoid of trees, and nearly covered with grass. The depths around the island are irregular, especially N and E of it, where there are patches of 9.6m at 1.2 mile distances.

From West Sandy Point, the coast trends SW for about 7 miles, then W about 7 miles to Stony Head. Noland Bay is the E part of this indentation. Its shore is sandy, with sand hills 9.1 to 21.3m high, and fronted by ledges of rocks which cover and uncover. Nearer Stony Head, the land becomes more elevated and is faced by cliffs 12.2 to 30m high.

Stony Head is a conspicuous headland, 98m high, with cliffs and broken ground, 37m high, seaward of its summit. This headland is the extremity of a range of hills sloping down from the inland mountains, the most conspicuous of which is Ryans Hill, 229m high, about 2.5 miles S of the head.

Tides—Currents.—Spring tides rise about 3m. The flood is the W current and sets parallel to the shore; the ebb is the E current. In the channel between Stony Head and Tenth Islet, about 2.7 miles NW and near salient points, the currents attain a velocity of about 1 knot. As the distance from the shore increases, the tidal currents become weaker and affected by prevailing winds.

3.8 Five Mile Bluff (41°01'S., 146°52'E.) lies about 7 miles WSW of Stony Head. About 1 mile W of Stony Head, there is a slight projection fronted by shelving rocks and shallow water, which should be given a berth of 1 mile.

Two Mile Reef lies about midway between Five Mile Bluff and Low Head (41°03'S., 146°47'E.), the E entrance point of Port Dalrymple. The reef extends from the shore in a NW direction for 0.8 mile, and shoal water extends for 0.5 mile farther in the same direction. This reef covers at half tide.

Vessels are liable to be set by the ebb current into the bay between the Two Mile Reef and Low Head. Between Five Mile Bluff and Low Head a vessel should keep offshore at least 2 miles, as inside this limit the sea breaks heavily with on-shore gales.

Caution.—A gas pipeline, best seen on the chart, has been constructed and extends from Five Mile Bluff, N across Bass Strait, to Ninety Mile Beach on the mainland.

Gas pipelines contain flammable gas under high pressure. Any ship damaging the pipeline would face an immediate fire

hazard. Mariners are cautioned not to anchor or trawl in the vicinity of the pipeline.

3.9 Hebe Reef (41°03'S., 146°45'E.), the outermost danger off the entrance of Port Dalrymple, is about 0.5 mile in extent, mostly in an E and W direction. The small portion of its center, which covers at half-tide and is marked by a light, lies about 2.2 miles W of Low Head. A bank, with a depth of 5.5 to 6.4m, extends 0.5 mile E from the reef, but there are 11m and 12.8m depths at less than 0.3 mile N and S of the reef. In good weather the sea runs over the reef without breaking. Two 10.1m patches lie 0.5 mile W and SW, respectively, of the drying portion of Hebe Reef.

West Head (41°04'S., 146°42'E.), the W entrance point of Port Dalrymple, projects 0.7 mile from the line of coast and is nearly 0.5 mile broad. Rocks, which dry 0.6m, extend 0.3 mile N from the point.

Port Dalrymple to Launceston

3.10 Port Dalrymple lies at the mouth of the River Tamar, which flows through a valley between two irregular chains of hills that project out NW from the great body of inland mountains. In some places, these hills are wide apart and the river then widens to a considerable extent; in others, they nearly meet and contract it to narrow limits. Of the two chains of hills which bound the valley, the E one terminates at Low Head. The other chain descends to Badger Head, about 6.5 miles WSW of Low Head.

The ends of these chains, when seen from directly off the entrance, appear as two clusters of hills having some resemblance to each other. In good weather the distant blue heads of the black mountains are seen over the tops of both clusters.

The port limits are a line drawn from the N extremity of West Head, NE to the highest part of Hebe Reef, then ESE to the N extremity of Low Head.

Tides—Currents.—At the pilot station, springs rise 3.1m, neaps 2.8m. The rise is irregular, the greatest observed being 3.1m and the least 1.2m. The highest tide noticed was during the neaps, caused by a strong NW gale. The flood current runs at a velocity varying from 2 to 5 knots, according to whether the river is in a confined or open area. The ebb current setting around Low Head into the bay to the E drifts vessels in that direction. At 3 miles in the offing, the flood current runs WNW at 1 to 2 knots.

At Low Head, the flood current runs for 50 minutes; at Georgetown it runs for 40 minutes, after HW by the shore; springs rise 3m.

At Launceston, springs rise 4m. During winter, after rains, the current sets down for several days at a velocity of 1 to 3 knots.

Depths—Limitations.—Sea Reach Channel has a least depth of 10m (1999). This is the controlling depth for Bell Bay and Beauty Point. Vessels are required to have an underkeel clearance of 1.4m. The maximum permissible draft is 9m at LW and 11.1m at HW. Vessels up to 168m in length can enter the port at any time, draft permitting. Vessels over 168m in length may enter only during the flood current and may enter at night only at the discretion of the pilot.

The channel between **Rosevears** (41°19'S., 147°00'E.) and Launceston had a least depth of 3m (1998) as far as Kings Wharf, 38 miles from the entrance, to which vessels of 100m in length with a maximum draft of 5.5m can proceed at HW.

In the lower reach of the Tamar, the channels along Beauty Point, Bell Bay, and Long Reach have least depth of 10.8m. A marine farm has been established along the S bank of Long Reach 0.5 miles W of Middle Point.

Pilotage.—Pilotage is compulsory for vessels 35m long or over, unless an exemption certificate for the port is held. Vessels making appropriate signals should wait in the offing about 0.5 mile E of the range or, if necessary, at the anchorage until instructed by the pilot station to proceed to pick up the pilot. Pilots usually board 3.3 miles NW of Low Head Light in position 41°00.7'S, 146°44.4'E.. Vessels requiring a pilot to enter Port Dalrymple should not proceed S of 41°02'S.

The pilot boat, painted blue and orange, displays the sign "PILOT." The pilot station is about 0.5 mile SSE of Low Head.

The pilot station, pilot launch, and tugs are equipped with VHF channels 12 and 16; the call sign is "Tamar Pilot." The pilot station is on the air about 1 hour prior to a ship's arrival if notified of the arrival time. If contact is required earlier, Launceston Radio may be called and the pilot station will be notified by telephone.

Vessels of less than 107m in length may, when during heavy weather and so instructed by the pilot station, proceed into the harbor just within Shear Rock, located about 0.3 mile W of the pilot station. Larger vessels, when unable to board the pilot, may be instructed to remain outside until the weather moderates. Vessels above 170m in length overall are only taken in during flood tide. Vessels exceeding 250m loa or 45m beam must contact the harbormaster for instructions.

Entry is dependent on the vessel's draft coordinating with tide cycle at George Town. A vessel would enter during a period between LW and 30 minutes after HW at George Town; usually the pilot boards 15 minutes before such time.

Regulations.—The vessel's ETA should be advised by radio 24 hours before arrival. Vessels should maintain a listening watch on VHF channels 12 and 16 while at anchor or transiting the river.

Anchorage.—Anchorage is available outside the harbor entrance, in 16.5 to 18.3m, with good holding ground, 1.5 to 2 miles NW of Low Head. Care should be taken to avoid the 8.7m patch reported NNE of the anchorage although its existence is extremely doubtful. This anchorage is not recommended in N winds in excess of force 5, as vessels are liable to drag their anchors.

Caution.—Considerable effect of local magnetic anomalies cause the compass unusable at the approaches and in various stretches of the River Tamar.

There are unsurveyed areas and inadequately surveyed areas at the approaches and inside the River Tamar where reefs and shoals are present.

The E shore of Port Dalrymple, from Low Head, trends 1.7 miles in a SE direction to She-Oak Point, and consists of alternate points and small bights, bordered by a shoal, the 5.5m edge of which projects 0.1 to 0.4 mile from the LW line. The shoal extends as a spit 0.1 mile NW from Low Head; off Dotterell Point, 0.3 mile S of the light, it projects 0.4 mile W, nearly to Middle Bank.

3.11 Middle Channel, the main entrance, lies between the Middle Bank, on the NE, and Yellow Rock, on the SW side. It is nearly 0.2 mile wide, with a least depth of 15.8m on the entrance range. Middle Bank (41°03'S., 146°47'E.), the most dangerous shoal in the entrance of Port Dalrymple, is a rocky patch 0.3 mile long and 0.2 mile wide, located 0.5 mile WSW from Low Head, with depths of 2.1 to 3.7m over its outer part. The sea breaks heavily over this bank in bad weather; and there are always heavy tide ripples on the ebb and flood. A light stands on the SW extremity of the bank.

Barrel Rock, which uncovers at half ebb, is marked by a beacon and lies about 0.7 mile S of the light structure on Low Head.

Barrel Spit, a rocky ledge with less than 3.7m at LW, extends from the beacon 0.2 mile in a S direction, the S extremity of which, with 4.1m of water, is marked by a lighted beacon.

Range lights are shown from two towers, painted white with a vertical red stripe, on She Oak Point, about 1.7 miles SSE of Low Head. The lights are 0.2 mile apart and kept in line bearing 128° lead through Middle Channel.

For vessels approaching from the NE, these lights will be seen showing white and red across the neck connecting Low Head with the mainland, but farther W they will be shut out by the high land of Low Head until the entrance to the river opens to the SE, when both lights will be seen showing red.

The inner reach of Middle Channel, from Middle Bank to just inside of Shear Rock, is marked by two lighted beacons standing about 0.3 mile N of She Oak Point, and in line bearing 123°, lead about 0.1 mile NE of Shear Rock.

On the S side of the middle channel, about 0.7 mile SW of Low Head, is Yellow Rock, marked by a lighted beacon, an extensive patch of kelp with a double-headed rock, on which the least depth is 2.7m. This rock forms the E extremity of West Reef, the N edge of which extends from it nearly 0.8 mile in a W direction. This reef is about 0.3 mile wide, but the only part of it uncovered at HW is Black Reef, which is 0.6m high, near the center, about 1 mile SW of Low Head.

Shear Reef, marked by a beacon, dries 2.1m and is connected with West Reef by shoal water where the greatest depth does not exceed 4.6m. A spit, with a depth of 2.7m on its extremity, projects 0.1 mile NE from Shear Reef. Shear Rock, with a depth of 0.3m, lies just within the end of the spit.

A light is shown from the S side of the channel, close E of Shear Rock, in a position about 0.8 mile S of Low Head.

3.12 Sea Reach Channel has a least depth of 10.4m over the outer edge of Honduras Bank. Toroa Patch, with a dredged depth of 10.4m on the range line, lies about 1 mile S of She Oak Point. The patch has a least depth of 7.6m close E of the channel and must be avoided by deep-draft vessels. Honduras Bank lies about 1 mile S of She Oak Point, with a depth of 3.3m on its E part, extends about 0.4 mile from the W shore and is marked by a lighted beacon.

The W side of Sea Reach Channel is marked by a lighted beacon on Northwest Bank in a position about 0.4 mile WNW of She Oak Point, and by a lighted beacon standing on Elbow Spit about 0.6 mile SSW of She Oak Point.

A light shown from a position about 0.3 mile SSE of the light structure on Low Head forms a range of 345.5° with that light, to lead through Sea Reach Channel to Elbow Spit.

Simmons Mistake is a reef extending out from the E shore in a position about 0.5 mile S of She Oak Point. The W edge is marked by a lighted beacon.

A lighted beacon stands about 1.2 miles S of Simmons Mistake. It marks the edge of a flat extending W from George Town.

Bombay Rock (41°06'S., 146°48'E) located 0.3 mile NW from the above beacon, has a depth of 3.6m and is marked on its NW edge by a lighted beacon.

Two lighted beacons, situated on the S shore of Kelso Bay on the W side of the channel, in line bearing 182.2°, give the line of the channel past Honduras Bank and Bombay Rock.

Kelso Bay is filled with a flat that extends about halfway across the river towards George Town. The N extremity of this flat forms a spit, with a depth of 0.9m, marked on its NW edge by a lighted beacon.

Garden Island is a small island located on the W side of the channel, SSW of George Town. Three lights are shown along the E shore of Garden Island. A beacon stands on the NE side of the bank, 0.3 mile NW of the SW extremity of Garden Island, and a lighted beacon stands 0.2 mile farther NW.

Range lights stand on the E shore about 0.5 mile S of George Town, and in line bearing 126°, show the line of the channel to Garden Island; a reciprocal pair of range lights, bearing 306°, stands on the opposite shore.

Power cables cross the river in an E-W direction from a position about 0.1 mile S of Saltpan Point. The cables are marked on both shores by two beacons; anchorage is prohibited within 0.1 mile either side of the beacons.

A light is shown from Point Effingham in a position about 1 mile SSE of Saltpan Point. Tugs usually meet vessels off this point.

Shag Rock, about 0.3 mile SW of Point Effingham, is just covered at HW. There is deep water close around the rock, and 34.7m between it and the shore. A beacon marks the rock and a light is shown about 100m SE of the rock.

3.13 Beauty Point (41°09'S., 146°49'E.) (World Port Index No. 54943) stands on the W shore of the River Tamar. The Beauty Point Wharf extends about 150m from Beauty Point, 0.5 mile S of Inspection Head. Five dolphins lie NNW and two dolphins SSE on the line of the end of the wharf. A marina is situated NW of the wharf. A charted area, prohibited to navigation, lies off the pier.

Inspection Head Wharf, with two berths, lies about 0.5 mile N of Beauty Point and close S of Inspection Head. The wharf has a length of 335m and a depth of 9.9m alongside. There is swinging room of 259m, with a least depth of 11m, abreast the N end of the wharf. A light is shown from the N extremity of the wharf.

The channel leading to Inspection Head Wharf has a least depth of 18.3m, and is marked by beacons and lighted beacons. A light stands on Orari Bank, a 3.9m patch, that lies on the E side of the entrance. A pile beacon, showing a light, stands in 4.6m, 0.1 mile E of Inspection Head Wharf and marks the W edge of the shoals E of the channel.

The channel from Inspection Head to the wharf at Beauty Point has a least depth of 12.2m in the fairway.

From the entrance to Beauty Point the channel trends E, passing N of Middle Island to Bell Bay. The channel is marked on each side by lighted beacons.

3.14 Port Dalrymple (41°08'S., 146°52'E.) (World Port Index No. 54940), also known as Bell Bay, is the largest port in Tasmania and lies on the N shore of the River Tamar. The port is sheltered from prevailing winds and has ample space and depth to allow large vessels to swing and berth under their own power. The industrial complex of Bell Bay stands on the W shore. The Comalco Works is a prominent feature. The channel leading to Bell Bay has a least depth of 10.8m and is marked by lighted beacons. An underkeel clearance of 1.4m is required by vessels, with a maximum allowable draft of 9m at LW and 11.5m at HW. Local knowledge is necessary.

The quarantine lines for Port Dalrymple are, as follows:

1. A line drawn 152° through Saltpan Point (41°06.4'S., 143°48.9'E.) and Point Effingham to the S shore. This line affects vessels approaching Bell Bay and Launceston.

2. A line drawn from Inspection Head 079 to Middle Island. The line affects vessels approaching Beauty Point Harbor.

Quarantine clearance can be obtained at any time, day or night.

Anchorage.—Good anchorage can be taken in 8m about 0.2 mile NW of Bell Bay No. 2 Light, with soft regular bottom, and out of the strength of the current, where a vessel not having a docking pilot or berth is recommended to wait before proceeding to Bell Bay or Launceston.

Anchorage is prohibited in the vicinity of submarine cables and pipelines as portrayed on the chart in the area between Clarence Point and Saltpan Point, Anchor Point and Deceitful Cove, NW of Point Effingham, and at the entrance to West Arm.

An extensive bank, with depths of less than 5.5m, fronts the SW shore of Long Reach. The bank, extending up to 0.6 mile offshore, congests the channel from Bell Bay to Little Dragon Beacon (41°10'S., 146°54'E.), and includes West Olverine Shoal. A marine farm lies just W of Great Dragon Beacon.

Shoals, with depths of 4 to 5.2m, lie about 0.2 to 0.3 mile N from Point Rapid, nearer to the S than the N shore. The main channel is to the E of the shoals.

From Point Rapid, the W shore of Moriarty Reach trends SW 1 mile to Ruffins Bay, off the S point of which there are some rocks marked by a beacon, and then sweeps around in a SSW direction about 1.2 miles to a point close off which is Drumstick Islet, with sunken rocks along its SE side marked by beacons.

The E shore of Moriarty Reach from Long Reach trends SW 1 mile to Sheep Tail Point, then 0.5 mile S to another point. Between this point and Rockey Point, 0.7 mile SSW, lies Redwood Bay.

At the entrance of this bay is Reids Rock, which uncovers at half-ebb and is 0.2 mile long, NNE-SSW, with a red beacon on it. The channel between Reids Rock and the W shore is 0.1 mile wide, with a least depth of 14.6m.

Redwood Islet lies 0.1 mile SW of the SW point of the bay just described, from which point the shore trends SSW 0.5 mile

to the E point of the NW entrance of Whirlpool Reach; the channel between Redwood Islet and Drumstick Islet is 0.1 mile wide, with a least depth of 21.9m.

3.15 Whirlpool Reach, from its NW entrance, trends SE nearly 1 mile and is less than 0.1 mile wide, with irregular depths of 12.8 to 36.6m.

Whirlpool Rock is just within the NW entrance of Whirlpool Reach. It is composed of numerous pinnacles of blue stone, intermingled with thick clay, and is about 36.6m by 27.4m in extent at LWS. It lies nearly in the center of the channel and 150m from the E shore, and has a depth of 4.6m. This rock narrows the main channel, which lies to the W, to about 100m.

Two white beacons on the E shore, when in line, show when a vessel is abreast of the rock. The alignment of two beacons on Oak Bluff clears close SW of the rock.

The Batman Bridge crosses Whirlpool Reach, at the narrowest part, from Oak Bluff to the E shore. The bridge, with a vertical clearance of 27.7m, is marked by lights at each side of the span and at the E tower.

From the SW side of the SE entrance of Whirlpool Reach, the SW shore trends SE nearly 1.5 miles and then SSE 1.2 miles to the Supply River.

Spring Bay, a bight which indents the shoreline about 1.5 miles, is located between the SE entrance to Whirlpool Reach and Mowbray Point, about 1.2 miles farther SE. At 0.3 mile within the entrance is Middle Bank, with a depth of 1.2 to 5.5m. There is a channel with 11 to 20.1m all around the bank.

Anchorage.—Anchorage can be taken, in 9.1 to 14.6m, sand and shell, between the SE entrance to Whirlpool Reach and Middle Bank.

From Whirlpool Reach to Mowbray Point, the depths in the fairway are 14.6 to 31.1m. About 1 mile SSE of Mowbray Point, a shoal bank, with depths of 6.9 to 7.8m, extends across the channel to a drying spit that extends NW from Egg Islet.

Anchorage.—Anchorage can be taken, in 11.4m, about 0.4 mile SW of Egg Islet.

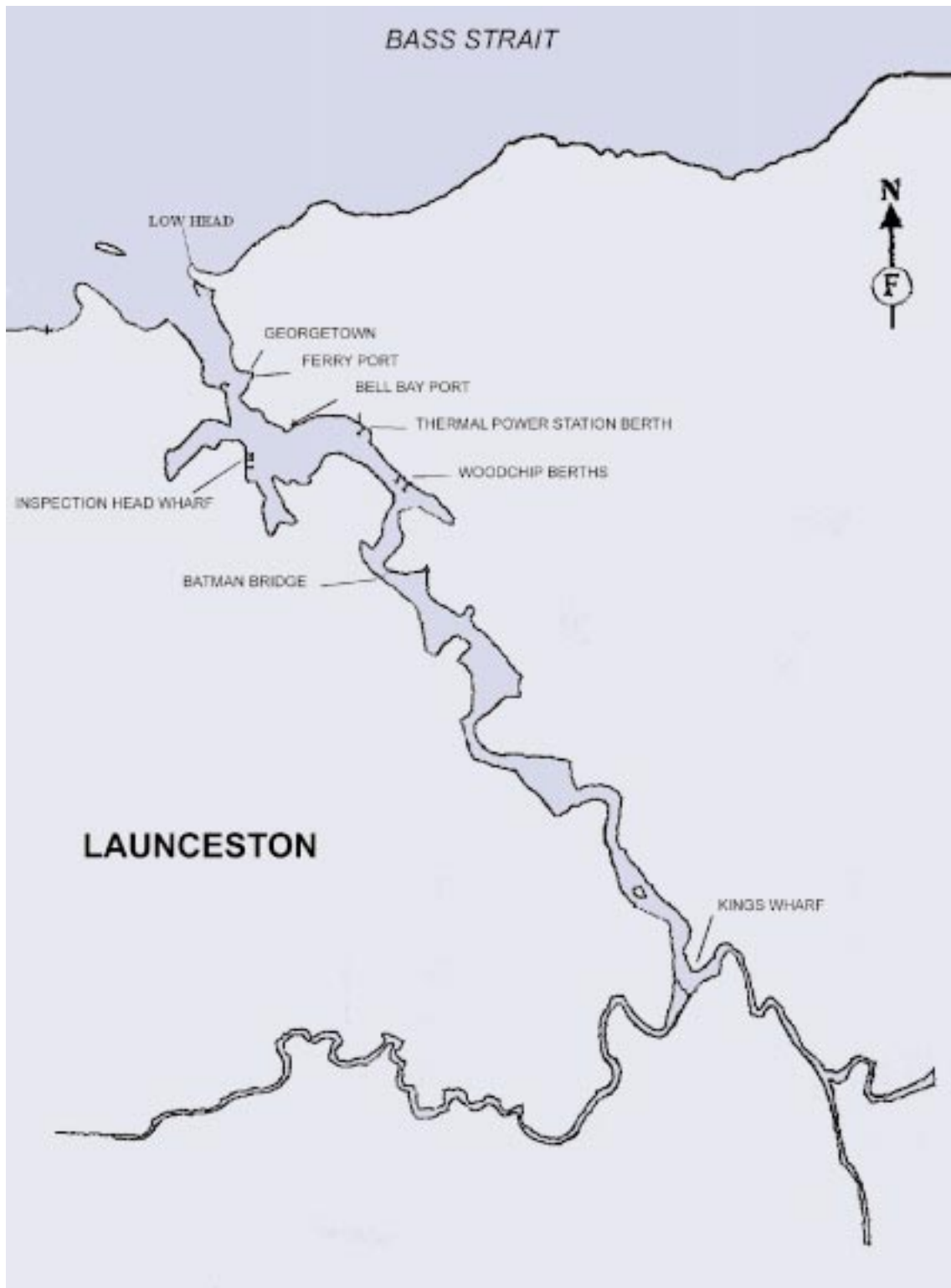
3.16 Hillwood Explosives Wharf is situated on the N shore about 0.5 mile E of Egg Islet. The timber-berthing head is about 20m long, with a depth of 4.6m at the outer end of the wharf.

From Egg Islet, the channel trends ESE 1.5 miles past Swan Point and is 0.3 mile wide, with depths of 14.6 to 25.6m between the NE shore and the shoals which extend from Swan Point. A submarine cable is laid from Swan Point in a NNE direction to the opposite shore. A beacon stands on the shore at each cable landing.

The river then increases to 1 mile in width, but the channel is only 400m wide or less, with depths varying from 8.8 to 19.2m. South from Stony Creek, about 2.5 miles S of Swan Point, the river contracts to 0.3 mile in width, the channel here being only 200m wide.

Gem Rock, at the entrance to Stony Creek, is dry at LW and marked by a beacon.

About 0.5 mile S of Stony Creek, there is a jett,y with a depth of 3.4m alongside its outer end.



From Stony Creek the river sweeps around E 2.7 miles to Cimitiere Point and is generally about 600m across. The channel being 150 to 200m wide, with depths of 5.5 to 17m in the fairway.

From Cimitiere Point to Launceston, the channel, with a least depth of 3m, is indicated by numerous lighted beacons, but it is unnecessary to describe it, as a pilot or local knowledge is absolutely necessary.

Caution.—An overhead cable, crossing the river about 0.5 mile above Launceston, limits the masthead height to 28m.

3.17 Launceston (41°27'S., 147°07'E.) (World Port Index No. 54970), the second city in Tasmania, is situated at the head of the River Tamar, which, following the winding course of the river, is 38 miles from the sea. It lies in a valley enclosed with hills.

Vessels of up to 106m in length and a draft of up to 5.3m can proceed to Launceston. The Town Pier at Launceston has a berthing length of 135m with a depth of less than 3m alongside and is subject to silting. There is a swinging basin opposite the wharf with the same depth. The Synchrolift berth is situated at the N end of the disused King's Wharf. It has a length of 105m and a depth of 4.5m alongside. The width of the channel in the approach is about 122m. Owing to the narrowness of the channel, passing vessels cause a considerable scend rendering it necessary for those in charge of vessels lying alongside the wharves to keep a careful lookout on the moorings.

Pilotage.—See paragraph 3.10.

Launceston to Devonport

3.18 Badger Head (41°06'S., 146°39'E.) and another projection 1.5 miles S of Badger Head, are rocky and the NW termination of the Asbestos Hills, in which the mineral of that name is found. The hills are from 289 to 396m high, and in clear weather are conspicuous from seaward. From the rocky projection S of Badger Head, a low coast curves in a SW direction 4 miles to a spit forming the SE side of the entrance of Port Sorell.

Port Sorell (41°08'S., 146°33'E.) is only available for small craft and boats.

From the NW entrance to Port Sorell, the coast trends 7.5 miles SW to the entrance of the River Mersey, and may be approached within 1 mile in from 7.3 to 12.8m, except at about 4.5 miles W of Port Sorell, where Horseshoe Reef extends 1.5 miles from the shore.

Egg Islet and Wright Islet are two rocks, one on the N and the other on the SW part of Horseshoe Reef, which consists of detached dry and sunken rocks.

Devonport (41°11'S., 146°22'E.)

World Port Index No. 54920

3.19 Devonport has, next to Port Dalrymple, the best and most secure anchorage on the N coast of Tasmania. The entrance to Devonport may be easily recognized by its W head, Mersey Bluff, high land with a light on it. A reef, discernible

from the broken water on it, projects 0.1 mile from the shore between the bluff and the river entrance.

The River Mersey, which flows into Devonport, is navigable for a distance of about 1.5 miles. A training wall, situated on the E side of the entrance channel, is awash at HW in two places and the outer end is submerged.

Port of Devonport

<http://www.portdev.com.au>

Tides—Currents.—Both the flood and ebb currents attain a velocity of 1 to 2 knots inside the river, but after heavy rains the ebb has been known to run 4 knots.

There is always an eddy off the wharf on the W side of the channel. This ceases for an interval of about 10 minutes at SW. On the flood, this eddy, which runs parallel to the wharf, is only felt at a distance of about 30m. On the ebb the eddy sets onto the wharf.

Outside the port, the flood is the W current and is not felt beyond 5 miles from the coast.

Depths—Limitations.—There is a bar across the entrance consisting of sand, which does not alter, except during a NW gale, when it may silt up slightly.

A dredged channel, about 76m wide, leads through the entrance of the harbor to a 300m wide turning basin, about 1 mile above the entrance. The entrance channel and the swinging basin are both maintained to a depth of 9.5m. There are no air draft restrictions in the port area.

There are four berths on the W bank of the River Mersey and three berths on the E bank.

Berth No. 1 East is used for passenger and freight ferries. It can accommodate vessels up to 170m in length and has a depth of 6.7m alongside. This berth also has a 11.4m stern ramp.

Berth No. 2 East is dedicated to ro-ro vessels. It can accommodate vessels up to 180m in length and has a depth of 6.7m alongside. This berth also has a stern ramp 23m in width.

Berth No. 3 East is used for general purpose including containers, general cargo, bulk clay, gypsum and fertilizer. It can accommodate vessels up to 225m and has a depth 11.7m alongside.

Berth No. 1 West handles bulk cement. It can accommodate vessels up to 185m with a depth of 9.2m alongside.

Berth No. 3 West handles general cargo and bulk tallow. It can accommodate vessels up to 180m in length and has a depth ranging from 5.2 to 7.2m alongside.

Berth No. 4 West handles oil products, bulk tallow, containers, livestock and general cargoes. It can accommodate vessels up to 225m in length and has a depth of 10.7m alongside.

Berth No. 5 West is used by tankers and passenger vessels. It can accommodate vessels up to 110m in length with a depth of 6.2m alongside.

The largest vessel to have used the port was 225m long, with a draft of 10.5m.

Pilotage.—Pilotage is compulsory for all foreign vessels and any vessel exceeding 35m length. The pilot boards all vessels, weather permitting, in an area about 3 miles NE of Mersey Bluff.



Devonport—No. 3 Berth West and No. 4 Berth West

Vessels requiring the services of a pilot are advised to radio their ETA and draft 12 hours prior to arrival.

Signals.—A fixed blue light by night, and an orange-colored shape displayed by day, shown at the masthead of the pilot station flagstaff, indicate that a vessel is leaving the port, when the channel is closed to incoming vessels.

Regulations.—The quarantine line for the port is drawn 090°-270° through Mersey Bluff Light.

Anchorage.—Anchorage can be taken 2 miles NNE of Mersey Bluff Light. Caution should be exercised when anchoring in NW winds.

Devonport to Burnie

3.20 The **River Don** (41°10'S., 146°20'E.), about 1.5 miles W of Devonport, is narrow and shallow with two or three villages within. Don Bluff is higher than Mersey Bluff, and has cultivated land and dead trees upon it. A reef, which projects 0.3 mile from Don Bluff, serves to break the sea from the immediate entrance.

A radio mast stands on Don Hill, about 1 mile W of Don Bluff; another radio mast stands on a 79m hill, about 0.5 mile S of the first.

The **Forth River** (41°09'S., 146°15'E.), the mouth of which forms Port Fenton, lies 4 miles W of the River Don and has a bar at the entrance which nearly dries at LW. A reef projects from the headland on each side of the entrance. About 1 mile N of the mouth of the river there is a bank, with depths of less than 3.7m, upon which the sea breaks at LW.

A rock, with a depth of 4.1m, lies 5.7 miles WNW of Mersey Bluff.

3.21 Ulverstone (41°10'S., 146°10'E.) (World Port Index No. 54900) is situated on the E bank of the River Leven, a short distance within the entrance. The entrance of the river, which is open to the NE, lies between masses of irregular and pinnacle-shaped rocks and ledges, with a bar across. The mouth is wide and well-sheltered from the prevailing W winds by the reefs extending N from Picnic Point, the W entrance head, under the lee of which there is good temporary anchor-

age outside the bar, in moderate weather, for vessels awaiting the tide. The coarse sandy bar at the entrance of the River Leven has a dredged channel across it, with a depth of about 1.2m.

Channel Rock, which dries 0.3m, lies 0.5 mile NE of the E breakwater head and is the principal danger in the entrance to the River Leven. Half-Tide Rock lies about 0.5 mile E of Channel Rock. This rock is sufficiently distant from the entrance not to form a danger if its position is known. Black Jack Rock, which also dries, lies at the elbow of the W breakwater and extends SE toward the entrance channel.

A beacon, 4.5m high, stands on the E breakwater at the entrance.

There is a wharf, 137m in length, with a depth of 2.1m alongside. The harbor is now used by recreational craft only.

Pilotage.—Pilotage is not compulsory, but a pilot is available and should be employed by vessels without local knowledge.

3.22 Dial Range is a ridge of mountains, 485m high, some 5 miles W of the mouth of the River Leven, and terminating to the N in two headlands lying NW and SE, 2.5 miles from each other; the SE projection is Dial Point. Both heads are fronted by dry and covered rocks.

Round Hill Point (41°04'S., 145°57'E.) is backed by Round Hill. A light stands on Round Hill Point, which has been reported to give a good radar return up to 23 miles. Another beacon stands about 0.1 mile SE of this beacon. These beacons, in line bearing 138°, are useful as cross bearings in the approach to the harbor of Burnie. Between Round Hill Point and Blackman Point, 2.2 miles W of it, is Emu Bay, into which flows the small Emu River.

Caution.—An isolated 11m patch lies about 1 mile NNE of Round Hill Point. Several isolated rocky patches, best seen on the chart, lie N of Blackman Point. Vessels should round Blackman Point at a distance of not less than 1.2 miles and, when approaching the bay, should remain in depths of 20m or greater until alignment on the entrance range is negotiated.

Burnie (41°03'S., 145°55'E.)

World Port Index No. 54880

3.23 Burnie occupies the W portion of Emu Bay. The bay is 2 miles wide W to E and stretches 1 mile N from Parsonage Point, 0.5 mile NW of Blackman Point. Vessels approaching from the W should keep within the safe sector of Round Hill Point Light and in depths of no less than 20m to the pilot station. Vessels approaching from the E should keep 2 miles off Round Hill Point to the pilot station. The port is fog free and has no restriction on night movements. From the approaches to the berth, the port has a least depth of 10m.

Burnie Port Corporation

<http://www.burnieport.com.au>

Depths—Limitations.—Berthing information is given in the accompanying table. The port is protected by two break-

waters. The port has deep water, with 10m in the approaches to the berths.

Burnie—Berthing Information (2003)			
Berth	Length	Depth alongside	Remarks
1	85m	10.0m	Former tanker berth. No longer used.
4	183m	10.5m	
5	213m	11.0m	Bulk cargo and petroleum discharge. Maximum vessel length of 250m.
6	198m	11.5m	Maximum vessel length of 280m.
7	219m	11.5m	Ro-ro. Maximum vessel length of 250m.

Aspect.—Saint Valentines Peak, about 19 miles SSW of Burnie, is a bare mass of granite. As it glistens in the first beams of the morning sun like an immense spire, it becomes the most remarkable hill feature on the N coast of Tasmania. The peak can be seen on a clear day from 60 miles.

A conspicuous chimney and a water tower stand 0.5 mile S and about 1 mile SSW, respectively, of the Emu River entrance.

Pilotage.—Pilotage is compulsory for all vessels over 35m long. The pilot boards about 2 miles NE of the breakwater. If a pilot is not employed, berthing instructions will be transmitted on VHF radiotelephone, or if necessary by flashing light from the signal station. The pilot boat is equipped with VHF radiotelephone.

Anchorage.—Anchorage can be taken in the bay but as a swell is nearly always setting in around the reef off Blackman Point, it is advisable to anchor in a position about 2 miles NE of Blackman Point in the vicinity of pilot boarding place, preferably in alignment with the leading line on 224°, sand and clay bottom. A vessel should not anchor in a depth of less than 13m.

Caution.—Vessels should keep clear of the breakwater because of the possibility of a strong set to the N.

Unless vessels are equipped with synthetic mooring lines, shore springs are required, as some surging occurs alongside the piers.

Due to the narrowness of berthing slips, tugs are required for single screw and cargo vessels.

Burnie to Stanley

3.24 The mouth of the **River Inglis** (40°59'S., 145°44'E.) is open to the NE and is protected from all winds W of NNW by Table Cape. It is further protected by a ledge of rocks extending to the NE from the left bank of the river, upon which ledge an embankment of stones has been formed. This ledge is marked by a lighted beacon. It is also protected from the E by ledges of rocks extending from the shore in that direction. There is said to be no outer bar at the River Inglis. The depth over the inner bar is about 2.4m.

Table Cape (40°57'S., 145°44'E.) is the cliffty extremity of woody flat-topped land. The cape is reported to give a good radar return up to 28 miles. A red obstruction light is shown from a hill in a position about 6.5 miles SW of Table Cape.

From Table Cape, the coast extends W about 7 miles to a low point surmounted by The Sisters, two remarkable round hills. A reef, with a small islet on it, projects N nearly 1 mile from the point. A detached patch lies ENE about 0.5 mile from the islet.

On the W side of the reef is a sandy bay, with a depth of 3.7m near the shore. This bay is apparently protected from the E by the reef, with the islet on it, which projects from the point. The coast from the point to Rocky Cape, about 4.5 miles NW of it, is bordered with rocks.

Rocky Cape (40°51'S., 145°31'E.) has a high pointed summit, with other peaks inland, rising to a height of 330m. The head is bordered with rocks. A rock, that dries 0.6m, surrounded by a reef, lies about 1 mile NE of the head. Foul ground extends about 1.5 miles N from Rocky Cape.

Sawyer Bay extends from Rocky Cape WNW for 11 miles to Circular Head. It has low sandy shores, except between the Detention River, 3 miles SW from Rocky Cape, and the Black River, 5 miles S from Circular Head, where the shore is rocky with hills rising behind it.

Anchorage.—Anchorage can be taken in the roads of Stanley Harbor, in a depth of 11m, sand and clay. In E winds, anchorage should be taken, in a depth of 8.5m, about 0.1 mile WSW of the main berth of the port. This anchorage avoids the swell that E winds set into the bay.

3.25 Port Latta (40°51'S., 145°23'E.) (World Port Index No. 54875) is an open sea loading terminal. The pier, which is equipped with a conveyor, has an ore berth at its head that can accommodate vessels up to 245m in length, with an alongside depth of about 15.2m. Ore carriers of more than 100,000 dwt and tankers are only berthed in daylight.

The use of a mooring master is compulsory. The mooring master will board about 2 miles N of the facility and will generally remain on board until departure. A VHF radiotelephone is available.

Aspect.—A large conspicuous pellet plant stands on the shore close to the main facility. In thick weather Circular Head, Rocky Cape, and the ship loader facilities are reported to give good radar returns.

Pilotage.—Pilotage is compulsory for vessels over 35m in length. The pilot boards 2 miles NE of the jetty head and remains on board throughout the stay of the vessel.

Anchorage.—Vessels can anchor in the vicinity of the pilot boarding place, in a depth of 29m.

3.26 Circular Head (40°46'S., 145°18'E.) is the E point of a peninsula which projects N from the coast and is 0.5 to 1.5 miles wide. The isthmus, which connects this peninsula with the mainland, is low and narrow with an inlet on either side. The Nut, which appears from the E like a small flat-topped island, is a singular mass of trappean rock rising abruptly from the sea to the height of 151m and is visible in clear weather from 30 miles. A slight covering of grass, with some bushes, gives it a smooth appearance. The head, which is reported to

give a good radar return, is connected with the peninsula by a narrow neck of lower land.

3.27 Stanley (40°46'S., 145°17'E.) (World Port Index No. 54870) is situated on the S shore of Circular Head and is protected by a breakwater on its E side. The Breakwater Pier has a length of 161m and offers an alongside depth of 8m. A ro-ro berth, with a mooring dolphin at its end, is 100m in long, with depths of 8.8 to 5.8 at the inner end. Adjacent to the ro-ro berth is Foreshore Wharf, which is 70m in length, with a depth of 4.9m alongside. The Fishermans' Dock lies just to the W and is formed by two breakwaters. Eight finger piers extend from the S breakwater.

Pilotage.—Pilotage is compulsory. The pilot boards about 1 mile SE of the breakwater head. The harbormaster's office is equipped with VHF radiotelephone.

Caution.—There is a strong set running E at the S end of the breakwater. It is especially strong during W and NW winds.

Stanley to the Fleurieu Group

3.28 Highfield Point (40°45'S., 145°18'E.) is a rocky point, 41m high, with drying rocks lying close offshore.

North Point, about 2.5 miles NW of Highfield Point, is a low shingle point with a dangerous rocky ledge, drying 0.9m at LW, extending ENE 0.8 mile from it.

A beacon stands 0.1 mile from the E extremity of the reef extending from North Point.

There are heavy tide rips off this reef with E winds. Shoals also extend about 1 mile NW from North Point.

Tides—Currents.—Both the flood and ebb set over the reef E of North Point at a velocity of 2 to 3 knots.

From the W side of North Point the coast, with a beach of sand and shingle, trends S 4 miles to West Inlet; then W, with a sandy beach, 6 miles to the opening to Duck Bay. Westward of the opening is Perkins Isle, the sandy coast trends NW 3.5 miles to Robbins Passage. Cape Elie, on the N side of Robbins Passage, is 2.5 miles NNE of Perkins Isle.

Perkins Bay (40°46'S., 145°10'E.), between North Point and Cape Elie, has a bottom of sand over clay and affords good holding ground and good anchorage with E winds. A heavy swell runs into this bay with strong N and NW winds. A disused submarine cable enters the bay on the NE side.

Robbins Passage, which separates Robbins Island from the mainland, is bounded to the S by Perkins Isle and the coast, and to the N by Robbins Island. The E entrance to Robbins Passage, which appears like the mouth of a river, is 2 miles wide between the N point of Perkins Isle and Cape Elie, the SE point of Robbins Island. The entrance to Robbins Passage is fronted by a bank, with depths of less than 5m, extending up to 2 miles offshore. The channel through the passage is suited for small craft only.

Woolnorth Point (40°38'S., 144°44'E.), the NW extremity of Tasmania, is low and rocky, with low sand hills partially overgrown with coarse grass and scrub. Two miles SW from the point, the land rises to a height of 82m and trends toward the W coast of the island, which consists of open undulating land from 91 to 122m high.

The Fleurieu Group

3.29 The Fleurieu Group consists of three principal and many small conspicuous islands.

Robbins Island, the SE and second in size of the Fleurieu Group, is a sandy island of a triangular form. The island is generally flat and swampy, but a ridge of hills, the summits of which are bare and 51 to 70m high, lies at the SW end of the island, and a ridge of timbered hills, 76m high, lies near the E point of the island. A belt of thick timber extends for 0.8 mile from the S shore of Robbins Island.

Cape Elie (40°43'S., 145°04'E.), the SE extremity of Robbins Island, is low and sandy. Guyton Point, about 2 miles NNW of Cape Elie, divides the E side of Robbins Island into two sandy beaches, the NW and more extensive of which forms a slight indentation, called Ransonnet Bay, with a depth of over 5.5m at a distance of 0.5 mile off it. Between Guyton Point and Cape Elie, the bottom is foul for a distance of 0.6 mile offshore, but depths of 9.1m and over will be found at 1.5 miles off it.

Walker Island (40°36'S., 144°56'E.) is separated from Robbins Island by a narrow winding channel which dries in places at LWSA fringe of low hills borders the E and W sides of the island, rising to a height of 27m at its SE point.

A chain of small islets and rocks, the highest 18m, extends E for 0.3 mile from the N point of Walker Island, and a small rock, 4.5m high, lies 0.6 mile SW from the same point and 0.2 mile offshore.

The Petrel Islets, a cluster of four principal islets, extend 1.5 miles N of Walker Island. The largest islet lies 0.5 mile N of the N extremity of Walker Island and rises in a sand hill, the top of which is covered with scrub to a height of 22m. The outer and NE islet is a reddish-colored rock and lies about 0.5 mile NE of the last-mentioned islet; a rock, 0.3m high, lies off its N end. The other two islets lie close NW and SW, respectively, of the main islet, to which they are almost joined at LW. They are of the same character as the NE islet, and are 21m and 19.8m high, respectively.

Petrel Bank, mud and sand, with a least depth of 2.3m, extends to the E of the NE Petrel Islet. The E extremity of this shoal, as defined by the 5.5m curve, is located in a position 3.5 miles, bearing 100°, from the NE Petrel Islet; the N edge of the same shoal, which is steep-to, is located 1.5 miles, bearing 066°, from the NE Petrel Islet. The shoal is dangerous to vessels rounding the Petrel Islets, as no clearing marks can be given and the tidal currents are strong.

Walker Channel, on the W side of Walker Island, has a least width of 0.3 mile and a least depth of 11.9m in the fairway. This channel is considered dangerous without local knowledge.

3.30 Three Hummock Island (40°25'S., 144°55'E.) is the NE island of the Fleurieu Group. It is of an oval form, with a bay on its NW side, and a coastal ridge of moderately-elevated land, partly bare of vegetation, extending from the S to the NE point of the island. Three hills, from which the island derives its name, rise gradually from this ridge; the S hill, a conical peak 239m high, 1 mile NE of the S extremity, is the highest part of the island. A conspicuous tower stands on this peak. The N hill, 168m high and densely wooded, lies 1 mile SW of Cape Rochon, the NE extremity of the island. About 1.5 miles

S of this hill is the third and intermediate hummock, 116m high. The island has been reported to give a good radar return up to 18 miles.

Between the S and NE extremities of Three Hummock Island, the coast consists of sandy bays and rocky points. On the NW side is Coulomb Bay, a broad shallow bay, with a long sandy beach. The shores of the island generally consist of a number of rocky points with several off-lying boulders; one, 3m high, lies 0.1 mile off the S point of the island, with a depth of 27.4m at a short distance. The largest and most conspicuous of the several boulders on the W point of the island is 7.6m high. The tidal currents are strong on the S side.

Taniwha Rock, with a depth of 1.5m, is located 0.5 mile, bearing 074°, from the E extremity of Three Hummock Island, with deep water around it. A rock, with a depth of 2.1m, lies about 0.2 mile NW of Taniwha Rock. Some rocks, 0.3 to 0.9m above water, lie between it and the shore.

A shoal of 2.7m is located about 1 mile E of the E extremity of Three Hummock Island. A shoal, with a depth of 12.3m, lies about 2.5 miles NNW of the NW extremity of the island.

Mermaid Rock, with depths of less than 1.8m, lies about 0.5 mile N of Cape Rochon. A rock, with a depth of 4.6m, was reported to lie 0.3 mile N of Mermaid Rock. There is deep water close to Mermaid Rock, and a passage of a little more than 0.1 mile wide between it and the shore.

From Cape Rochon the rocky coast trends W 3.5 miles to the NW extremity of the island, and then SE 1 mile to the NE point of Coulomb Bay. There are depths of 8.2 to 12.8m in the bay. A projection, 0.8 mile S of the SW point of the bay, forms the W extremity of the island which, although rocky, may be rounded at a distance of 0.5 mile in depths of 12.8 to 20.1m. A jetty, with a few buildings standing nearby, projects from the shore about 0.4 mile SE of the W extremity of the island.

3.31 Hunter Island (40°30'S., 144°45'E.), the W and largest of the Fleurieu Group, has a small rocky bight on the W side. It is moderately elevated; the highest part, Chase Hill, lies about 3.5 miles S of Cape Keraudren, a low, sloping, rocky point, and the N extremity of the island. Its N part has a most barren and sterile appearance, but its S coasts are formed by wooded hills of moderate height.

A rock, which dries about 2.4m, lies 0.2 mile offshore, 1.2 miles SSW of Cape Keraudren.

The E side of Hunter Island has small sandy bays between its slightly projecting points, off which there is a good anchorage, in a moderate depth, with shelter from all but E winds.

Anchorage.—The best anchorage on the E side of Hunter Island is in about 14.6 to 18.3m, from 1 to 1.5 miles offshore, with the W extremity of Three Hummock Island bearing 019° distant 3.5 miles. The approach to this anchorage between Hunter Island and Three Hummock Island has a depth of 14.6m.

Dangerous Bank, upon which the sea breaks mainly with a moderate swell, lies W of Cape Keraudren, with its shallowest spot about 2 miles WSW of the cape. There is deep water between the cape and the bank, but the channel is not recommended.

3.32 Cuvier Bay (40°28'S., 144°45'E.), on the W side of Hunter Island, cannot provide a desirable anchorage as it is ex-

posed to W winds. Temporary anchorage can be taken during S and E winds in the S part, in 14.6 to 18.3m, mud, 0.8 mile offshore. The coast in the bay is steep, except near the N part, and rocks extend 0.5 mile N from the W point of the bay, which should be given a berth of 1 mile.

Cutter Rock, with a depth of 5.5m, is located 0.7 mile W of the W extremity of Hunter Island. A rock, which dries 0.3m, lies about 0.5 mile S of Cutter Rock. These should be given a wide berth.

Caution.—The W side of Hunter Island is rocky and, as dangerous rocks and breakers extend considerably to seaward from the W extremity of the island, it should be carefully avoided.

3.33 Albatross Islet (40°23'S., 144°39'E.), 0.8 mile long, N-S, and 0.3 mile wide, lies about 6 miles W of Cape Keraudren. The E side is an almost perpendicular cliff with deep water close-to. Both sides are steep, but rocks extend 0.2 mile from the S extremity of the island. When seen from a SW by W or NE by E direction, a deep notch in the middle of the island appears to divide it.

There are strong tide rips over both ends of the island during the strength of the currents.

North Black Rock, about 50m in extent and steep-to, lies about 6 miles S of Albatross Islet.

South Black Rock, about 5.5 miles SSW of North Black Rock, is a round mass about 0.1 mile in extent. A rock, which dries 2.1m, lies about 0.5 mile SW of South Black Rock.

Tides—Currents.—The tidal currents W of these islets and reefs run at a velocity of 2 to 3 knots, the flood to the NE.

Steep Islet, about 4 miles E of South Black Rock, is 0.3 mile wide and its summit is covered with grass. Its coasts are mostly steep cliffs. Rocky ledges extend off its N and S sides and a bank extends 0.3 mile off the E side. A rock, 3m high, lies 0.2 mile SW of its W extremity.

A rock, with a depth of 2.3m, lies about 1.5 miles E of the N extremity of Steep Islet.

Nares Rocks (40°35'S., 144°41'E.) lie nearly 1 mile S of Steep Islet and consist of four small rocky islets, the largest of which is 8.8m high. A rock, which dries 1.8m, lies 0.4 mile WNW, and another drying 2.4m, 0.1 mile E of the highest rock.

Delius Islet, 6.4m high, is the largest of a group of small rocks located 1.2 miles E of Nares Rocks, on a reef about 0.2 mile in extent. Rocks lie 100m to the S and to the W of the reef. A rock, which dries 2.1m, lies 0.3 mile N of the islet. Two other rocks lie between it and the islet. A shoal, with a depth of 7.3m, lies 0.8 mile NW of Delius Islet.

Bird Islet, about 1 mile S of Delius Islet, is 0.6 mile long, N-S, and 15.2m high at its S end, with a channel 0.5 mile wide between it and Keafer Point, the SW extremity of Hunter Island, in which the depths vary from 12.8 to 42m. A cairn stands on the islets N extremity.

Brown Rocks, 8.5m high, are located about 1.5 miles W of Bird Islet. They are a chain of bare rocks extending for 0.3 mile E-W. A rock, with a depth of less than 1.8m, lies 0.1 mile N of the easternmost of the Brown Rocks.

3.34 Trefoil Island (40°38'S., 144°41'E.) is nearly 1 mile in extent and receives its name from its resemblance to a clover leaf. The S and W sides are abrupt cliffs; it is covered with

grass, but is bare of trees. The highest part of the island is over the S extremity. Reefs extend from its NW and S sides.

A bank of sand, with depths of 2.7 to 5.5m, joins Trefoil Island with the mainland. It breaks heavily with W winds. Trefoil Rock lies nearly midway between Trefoil Island and the W side of Woolnorth Point, about 1.2 miles ESE of Trefoil Island.

The Henderson Islets, located about 1.5 miles NNE of Woolnorth Point, consist of a group of small islets and rocks occupying a space 0.8 mile long, N-S; the N islet is 4.5m high. They are located on the foul ground which extends from Woolnorth Point to Bird Islet.

A stone cairn stands on an islet, near the S end of this group, about 0.4 mile SSW of the N and highest islet.

Crescent Bank is 4.5 miles long and about 0.5 mile wide. It extends E from a position about 2 miles E of Woolnorth Point. Its shallowest part is near the W end, 4.6m deep; the E part has depths of 5.5 to 8.2m.

Tides—Currents.—East of Hunter Island, the W or flood current begins at 4 hours 30 minutes to 3 hours 30 minutes before HW. It sets to the W between the Petrel Islets and Three Hummock Island, when it divides, part running to the SW through the channels between Walker Island and Hunter Island, and then W between the islets S of the latter; the other part sets N up Hope Channel, turning sharply to the W and SW around Cape Keraudren and racing with great strength over Dangerous Bank. The E or ebb current begins 3 to 3.5 hours after HW and sets in the opposite direction.

West of Hunter Island, the flood or W current is met by the flood current setting to the N up the W coast of Tasmania. In general, within a distance of a few miles W of Hunter Island, the current runs in accordance with the currents on the E side of the island. These currents, however, are complicated by the currents on the W coast of Tasmania, which often results in a preponderance of set to the NE. The W and SW gales of winter also greatly affect the currents W of Hunter Island.

The tidal currents set with great strength through Hunter Passage and the chain of islets and rocks between Hunter Island and Woolnorth Point, attaining a velocity of 5 knots in places at springs and forming heavy races off the points of the islands and many swirls and eddies in the channel.

Reid Rocks (40°15'S., 144°10'E.) is a cluster of small rocks located in an area of foul and dangerous ground. The NW and highest of these rocks is a small, dark mass, 12.2m high.

Note.—Other dangers S and E of Reid Rocks are described in paragraph 1.22.

Fleurieu Group to Macquarie Harbor

3.35 The waters off the W coast of Tasmania have been little surveyed, therefore, caution should be exercised when sailing this area. Lesser depths of water and unreported dangers may exist in addition to what is described.

Cape Grim (40°41'S., 144°41'E.), the NW cape of Tasmania, is a bold grass-topped headland of dark-colored rock, with an almost perpendicular front. A radio tower, approximately 90m high, reported conspicuous, stands on the headland. Steeple Rock, a fallen fragment from the cliffs above, lies close S of it and is 43m high.



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Looking N across Cape Grim

The Doughboys are two remarkable islets, with almost perpendicular sides, lying E and W of each other and close off Cape Grim; their tops are covered with coarse grass. The W doughboy lies 0.8 mile W of Cape Grim. There is deep water close seaward of them.

The coast between Woolnorth Point and Cape Grim consists of a sandy beach and a rocky point, fronted by dry and covered rocks.

Tides—Currents.—At Cape Grim, the SW current has a velocity at springs of 5 knots and at neaps of 3 knots.

From Cape Grim, the coast, consisting of black cliffs, trends about 4.5 miles S to Bluff Point, on the E side of which is Studland Bay, a small exposed sandy bight with an islet in it.

3.36 Hally Bayley Shoal (40°49'S., 144°23'E.), the position of which is approximate, lies about 13 miles NW of West Point. The area has a depth of 5.5m; the sea occasionally breaks over the obstruction.

Porpoise Shoal lies about 7 miles W of West Point and has a depth of 5.7m. The sea breaks over this shoal occasionally; deep-water soundings have been obtained between it and the coast.

West Point (40°57'S., 144°38'E.), about 16 miles S of Cape Grim, is a sandy projection enclosed by dry and covered rocks.

Church Rock (40°49'S., 144°35'E.), the position of which is approximate, lies about 3 miles S of West Point.

Sandy Cape (41°25'S., 144°45'E.) projects 2 miles from the line of the coast and is reported to give a good radar return up to 18 miles.

Between Sandy Cape and another projection, 18 miles SE from it, the coast forms an exposed bight. The Pieman River entrance is about 16.5 miles SSE of Sandy Cape.

There is a patch of dry and covered rocks close off the mouth of the Pieman River; 1 mile to the S of it are two conical rocks standing on a reef of dry and covered rocks extending along a projecting part of the coast.

There are three bare rocks on the N side of the entrance to the Pieman River. The least water on the bar is 3 to 3.6m, located S of the E rock. The sand forming the bar is continually shifting; in good weather the entrance to the river is contracted both in width and depth; after heavy rains the scour of the current deepens and widens the channel.

With S winds, the conical rocks S of the river entrance partly break the sea on the bar; with NW or W winds the bar is very dangerous with heavy breaking rollers.

From the Pieman River, the coast is rocky with a large projection, about 3 miles across, lying immediately S and rising to Yarrana Hill. From the two previously-mentioned conical rocks, the coast trends S for 19 miles to Trial Harbor and then 16 miles S, with a long sandy beach, to the entrance of Macquarie Harbor.

Trial Harbor is a small bight, sheltered from winds N of NW by Heemskerck Point, and from the S by a low reef of rocks that extends in a SW direction, but the harbor is wholly exposed between the NW and SW. It is a dangerous place is necessary. Trial Harbor should only be approached during good weather.

Aspect.—From West Point to about 60 miles S of it, the country is low for 2 or 3 miles inland. The land then rises gently to a chain of low barren hills, behind which there is a second chain much higher and better wooded than the first. Mount Norfolk is located about 10 miles E of Sandy Cape and is the middle and higher of a chain of hills which are conspicuous from the offing and in clear weather are visible before the coast abreast of them.

3.37 Cape Sorell (42°12'S., 145°10'E.) is a rocky projection of moderate height, forming an extensive bay between it and the N end of the long sandy beach, in the S part of which is the entrance of Macquarie Harbor. Cape Sorell is the W head of the entrance.

Its extremity is low, terminating in straggling bare rocks of brown appearance; the coast on each side is very rocky and sterile. Many patches of breakers and above-water rocks lie detached from the shore. There is one small rock, just above the water's surface, lying 0.2 mile NW of the cape, with apparently no safe channel inshore of it.

Watts Hill, about 1.5 miles E of Cape Sorell, is a conspicuous lump of rock on the NE part of the cape. An above-water rock, connected with the coast by a reef, lies 0.1 mile NW of the foot of the hill. There is a small rocky islet E of the hill about 100m from the coast.

3.38 Macquarie Harbor (42°13'S., 145°14'E.) is an extensive sheet of water trending from its entrance 19 miles SE, and is from 2 to 4 miles wide, with regular depths within the entrance ranging from 9.1 to 36.6m. It is the second-largest harbor in the southern hemisphere after Sydney

Pilot Bay extends from the foot of Watts Hill SE about 1 mile to the W entrance point of Macquarie Harbor and has a sandy beach in the W bight. This bay is only accessible to boats as it is being filled by the W sands of the bar. A light is shown from the W entrance point.

Mount Antill, about 1 mile S of Watts Hill, is similar to it, but has a remarkable double summit.

Entrance Island lies about 85m E of the steep rocky projection which forms the W entrance point of Macquarie Harbor. The island is a mass of rock, having some small detached rocks extending about 100m from its N point. The proper channel into Macquarie Harbor is between this island and the W entrance point. A light is shown from the W side of Entrance Island. A beacon stands about 40m SE of the light.

The channels are liable to alter in position and depth, owing to the occasional great rush of water out through the banks and shoals which, being composed of sand, are of a shifting nature. It is not advisable to enter without local knowledge.

From a point located about 0.3 mile W of Entrance Island, a breakwater extends from the shore in a 359° direction for a distance of 0.5 mile, then for a further distance of 0.2 mile in a 336° direction.

Tides—Currents.—The tidal rise at MHHW is 0.9m, at MLHW it is 0.7m, but the height of tide is influenced by W and NW gales, and by great freshets that, during the prevalence of rainy or thick, cloudy weather, flow into the harbor from the high mountains in the interior, at which periods the channels between the shoals are deeper than usual. During a two week observation, the tides were irregular, making HW sometimes twice, and at other times only once in 24 hours, and in both cases the ebb ran twice as long as the flood, producing a difference in the level of the water, which on several occasions did not exceed the average fall of 0.5m.

An ebb for 9 days together, without the water rising or falling so much as 0.3m, has been experienced, although at other times, during NW gales, the inundations were great, frequently overflowing the adjoining lowlands.

The tides at Macquarie Harbor are very irregular, partly owing to their being disturbed by the winds, which have an extraordinary influence on the height of the water in the harbor. The extreme range of tide seems to vary from 0.5 to 0.9m, but this is so irregular that it is impossible to predict anything about the tides, except that in good weather and with SW winds the tides are low, but with strong N winds the tides are highest. An onshore gale, or even a fresh breeze, may raise the level of the lagoon to the extent of completely masking the tides.

At the entrance, there is usually only one tide in 24 hours, but a false tide often follows a short time after HW, the effect of which is that after the water has begun to ebb strongly the tide again rises, the ebb slackens for an hour or more, then finally the tide begins to fall, and the strong ebb sets out again. The extensive shoals which obstruct the entrance prevent the full effect of the sea tide reaching into the lagoons; thus, in fine weather, with a range of tide up to 0.6m, there is a strong flood and ebb tide into and out of the harbor, the effect of which extends even 20 miles up the Gordon River; but this range of 0.5 or 0.6m causes a range of only 23 to 38cm at Strahan, and the same at the mouth of the Gordon River.

The tides are higher in winter than in summer to the extent of nearly 0.3m; about the time of HW and LW the tide is slack for more than an hour, while the water slowly rises for some time before the flood tide; this phenomenon is said to account for the extraordinary difference observed in the length of the ebb as compared with the flood tide, the ebb being frequently 18

hours and the flood only 6 hours. With a N gale coming on, the tide flows into the harbor very strongly, and often for 24 hours continuously; the harbor then fills up 1 to 1.2m, and even 1.5m above LW. As soon as the gale begins to abate, or even during its height, if it shifts to the W, the water of the harbor ebbs out with great force, the duration of the ebb being often 18 hours, and only checked for 5 or 6 hours as the tide rises at sea. In good weather there are often days when there are no tidal currents either in or out; on the other hand, the flood tide is longer and the ebb shorter in good weather. In good weather, undisturbed by approaching bad weather or by floods in the rivers, the flood and ebb tides are or nearly equal in duration; occasionally the flood tide attains a velocity of 4.2 knots, and this generally indicates the approach of bad weather.

During a very heavy gale from the W, the range of tide varied from 3 to 4m on the bar; the tide ebbed and flowed all through the gale, with very a short flood, about 7 hours, and a long ebb, about 17 hours.

Tidal signals are displayed from the port signal station situated on the W entrance point.

Great attention must be paid, not only to the ranges and to obtaining quick soundings, but to the tidal currents, which run here with great strength, and during freshets, sometimes at a velocity of 5 and 6 knots.

In the narrow channel between Entrance Island and the W rocky shore, the ebb tide runs at times like a cataract, with a velocity of 10 knots. In sailing against the ebb between Entrance Island and the steep rocky point to the W of it, favor the W shore while passing the island, as the tidal current sets strongly out of a bight just within it, and is likely to set a vessel upon the island.

Depths—Limitations.—The outer bar is located opposite the center of the W breakwater. The bar had a reported depth (2001) of less than 4.0m. Entering vessels are limited to a length of 72m, and a draft of 3.6m. The depths in Macquarie Harbor, between the spit off River Point and the reef projecting from Headquarters Island, range from 7.3 to 36.6m in mid-channel, and then generally decrease to 11 and 18.3m within 0.5 mile of the shore on either side. From at depth of 14.6m, about 1 mile SE of Headquarters Island, the depths decrease to 3.7m on the bar of the Gordon River.

Pilotage.—Vessels bound for Strahan, in Macquarie Harbor, should advise the Harbormaster, Hobart, of their ETA at the bar at least 72 hours in advance, confirming or amending the time as early as practicable. When within range, about 30 miles, a vessel should contact the pilot station at the W entrance point by VHF. Watch is kept when a vessel is expected. On receipt of this information, the harbormaster will communicate to them information regarding the bar conditions and local tides.

Vessels are to reduce speed to a minimum consistent with safe navigation in the vicinity of Macquarie Heads. Vessels are not to exceed 8 knots E of the 005° lead into Strahan Harbor.

As a rule, the pilot will board vessels from a wooden motor launch, 0.1 mile N of the head of the W breakwater. In approaching this position, vessels should keep Bonnet Island light more nearly in line with the W entrance point light structure than with that of Entrance Island. Pilotage is compulsory.

Regulations.—Landing is prohibited, without special permission, on Entrance Island and Bonnet Island.

From about 0.5 mile E of Entrance Island, the sandy beach, which forms the E side of the entrance to Macquarie Harbor, trends SW about 0.4 mile to Braddon Point, on each side of which the land is low and sandy for several miles, and covered with shrubs. The land which forms the W side of the channel is steep and rises to irregular ranges of rocky hills of quartzite and sandstone.

The W side of Braddon Point is fronted by a bank, the outer edge of which extends W about 0.3 mile off the point nearly to the opposite shore, then passing close to Entrance Island, and 0.5 mile N to a spit which always breaks, forming the E part of the bar. From this spit, the NE edge of this bank trends SE to within 0.3 mile of the beach.

Anchorage.—In the approach to the harbor entrance, there is no shelter from winds between the N and W for anything except small vessels. Gales from the W and NW are frequent and violent; when wind is expected from these quarters, anchorage outside the bar is unsafe.

In good weather, anchorage may be taken, in 22m, about 1.5 miles NW of the breakwater, while awaiting the pilot or the tide.

Vessels carrying explosives must anchor S of a line drawn from Regatta Point to Magazine Point.

A telegraph cable has been laid across Macquarie Harbor, 0.4 mile S of the W entrance point of the harbor, to a position about 0.1 mile SE of Sandy Point. Two beacons, the positions of which are approximate, mark the W end and there is a hut between them and the shore. Vessels are cautioned against anchoring in the vicinity of the cable.

3.39 From the W entrance point, the W coast of the bay trends S 0.5 mile and then SE 0.8 mile to Wellington Head, a conspicuous hill, located 0.7 mile S of Braddon Point. This head rises rather abruptly from the W side of the harbor, and is easily distinguished by its table top, which is 76m above the level of the sea and is separated from the other hills to the W by a deep notch that gives it the appearance of being isolated before the connecting land becomes visible. There is a white mark about halfway up the hills on the S side of the head.

Bonnet Island (42°13'S., 145°14'E.) lies close to the shore, 0.3 mile N of Wellington Head. It is small, with a round bushy summit. The Cap is a small rock about 100m SSE of Bonnet Island.

Bowra Rock, with a depth of 0.9m, is located on the N side of the channel about 0.1 mile NNE of the N extremity of Bonnet Island. A light is shown from the N side of Bonnet Island.

Channel Bay (42°15'S., 145°14'E.) extends from Wellington Head 1 mile SE to Spur Point and recedes 0.5 mile. Its N entrance is blocked by the training wall built from Wellington Head across the N entrance to Channel Bay and on the extensive shoal fronting Channel Bay. The wall extends 1.5 miles in a curve, parallel to the sand banks about 0.2 mile distant.

Round Hill is a 95m high, steep projection, with Spur Point, its N extremity, about 0.7 mile SSE of Wellington Head.

The N shore of Macquarie Harbor from Braddon Point trends ESE 2.2 miles to River Point, and then sweeps around in a NE direction about 1 mile to Yellow Bluff, and is fronted by extensive sand banks, nearly dry at LW, which form the E and N sides of the channel leading to the port of Strahan.

Kelly Channel is marked by beacons and buoys as far as the deep-water portion of Macquarie Harbor.

From Round Hill the SW shore forms a bight extending 1.5 miles SE to Backagain Point, a high projection, having 8.2m of water close to it. The steep elevated shore of this bight is separated from the S extensive sandbanks in front of it by a narrow channel, which is said to be finally lost among the shoals to the E.

Between Backagain Point and Liberty Point, the N extremity of a narrow sharp ridge of moderate elevation, lying 2.5 miles ESE of Backagain Point, the coast forms two bights separated by Table Head, a high steep, flat-topped point, 1.5 miles ESE of Backagain Point. Each of these two bights is about 0.8 mile in extent, very shallow, the 3.7m curve being some 2 miles N of the point.

Betsy Island and Bird Islet lie 0.7 and 0.6 mile E, respectively, of Backagain Point; the former, though little more than 0.1 mile in extent, is conspicuous, but the latter is a mere rock. Both islets, together with the rocks about them, are connected with and surrounded by the extensive sandbanks which stretch 2 miles to the N and NE from Table Head. These sand banks are usually covered.

Kelly Channel, the passage from the entrance channel into the deep water of Macquarie Harbor, is about 0.1 mile wide, with from 3.7 to 5.5m of water at its W end, N of Round Hill. The channel then trends E between the sand banks for 1.5 miles, with depths of 1.8 to 5.5m. Kelly Channel then gradually widens in an ENE direction to more than 1 mile at its E entrance between the sands, where the depths increase to more than 21.9m.

The intensified sector of Bonnet Island Light leads over the outer bar to a point abreast Entrance Island. Range beacons shown from a point about 0.5 mile S of Entrance Island and bearing 117.5°, lead from Entrance Island to the next set of ranges. The second set of range beacons, bearing 322.5° astern, lead to Bonnet Island, where the third set of range beacons are intersected. The front beacon of this third set is shown from the training wall about 0.3 mile SSE of Wellington Head, in line bearing 156° with a beacon shown from Round Hill Point. The fourth set of ranges, in line astern bearing 318.5°, lead parallel to the training wall on the W side of the channel. The last set of range beacons, in line astern bearing 295.7°, leads from abreast a beacon on the training wall to the entrance for Kelley Channel. Care should be taken to properly identify this range as four beacons stand on this bearing.

3.40 Strahan (42°10'S., 145°20'E.) (World Port Index No. 54850) is situated in the N portion of Long Bay. The port is mainly used by local craft and fishing boats. A vessel with a maximum length of 72m and a draft of 4.1m can be taken to berth.

A conspicuous radio mast, painted in orange and white bands, stands close SE of Strahan at an elevation of 22m

The N arm of Macquarie Harbor, which forms the approach to Strahan, extends N of an imaginary line joining Yellow Bluff to Sophia Point, about 3.5 miles ESE. A deep channel extends through this arm between the shore banks on either side to Strahan. This channel is wide for the first 3.5 miles to the entrance to Long Bay, between Town Point, on the W, and Dead Horse Point, on the E, above which it has a width of



Strahan

about 0.2 mile. Magazine Point is located about 1 mile N of Town Point on the W side of Long Bay; Regatta Point lies about 0.7 mile N of Dead Horse Point on the E side of Long Bay. The general depths range from 27.4 to 50m in Long Bay, shoaling to 20.1m at the N end.

Two lights, in line bearing 005°, with the forward shown from Regatta Point and the rear 0.4 mile N, lead into Long Bay on a course between Dead Horse Point and dangers lying off Town Point.

Pine Cove (42°12'S., 145°22'E.) is a bight in the E shore of the N arm of Macquarie Harbor. In proceeding from Kelly Channel to Pine Cove the shoals and rocks extend about 0.5 mile S of King Point, close NW of the cove. They are marked by a beacon and must be approached with caution. Depths gradually decrease to 5.5m within the cove, where there is good anchorage for small vessels, with mud bottom. A submerged rock, dangerous to navigation, is located about 0.5 mile E of the beacon.

Tides—Currents.—There is little or no tidal current in Pine Cove, and the rise and fall does not usually exceed 0.4m.

Sophia Point, a low projection of the NE shore of Macquarie Harbor, about 3 miles NE of Liberty Point, is enclosed by a reef, with straggling rocks extending about 0.4 mile from it.

The SW shore of Macquarie Harbor from Liberty Point trends S 2.2 miles, and E 0.8 mile to a projecting head, forming the NW entrance point of Double Cove.

The remainder of Macquarie Harbor is not completely surveyed and should not be entered without local knowledge.

Macquarie Harbor to Port Davey

3.41 The waters off the W coast of Tasmania have not been fully surveyed and uncharted dangers may exist.

From Cape Sorell, the coast extends SSE about 25 miles and then SW about 3 miles to Point Hibbs. The coast consists of a series of rocky bights and projections. For the first 12 miles from the cape, the coast is fronted by rocky ledges and above-water rocks, generally extending about 1.5 miles from it. The

land behind the this coast rises by a gentle ascent, for a distance of 2 or 3 miles, and is apparently smooth and uniform, but barren of timber and most other vegetation.

Sloop Rock (42°17'S., 145°11'E.), a small islet, lies about 5.5 miles S of Cape Sorell. A line of above and below-water rocks lies between Sloop Rock and Cape Sorell. A group of rocks lies about 1 mile S of Sloop Rock. An above-water rock was reported (1981) to exist about 2.6 miles SSE of Sloop Rock.

Breakers are reported to exist in two places between Sloop Rock and Point Hibbs. Rocks, awash, lie about 3 and 5 miles N, respectively, from Point Hibbs.

Point Hibbs (42°37'S., 145°15'E.) projects SW about 3 miles from the coast and is higher than the neck by which it is joined to the back land. A remarkable pyramidal rock lies about 1 mile NE of Point Hibbs. The rock may resemble the crown of a hat when bearing NNE over the extremity of the point. A ledge of rocks projects about 1.5 miles from Point Hibbs and along the S side of the point. Some of the rocks on the E part of the ledge are above-water.

Between Point Hibbs and Low Rocky Point, about 25 miles SSE, the land is somewhat more elevated and not so destitute of timber as that N of Point Hibbs.

Svenor Point (43°12'S., 145°45'E.) is a flat point of land with several rocks off it. Hobbs Island, round and small, is located about 2 miles SE of the point.

From Svenor Point, the coast trends 8 miles farther SSE to Cape St. Vincent, the land between forming several small bights with islets occasionally close offshore.

Aspect.—The coast for about 18 miles to the SE of Low Rocky Point is high, and at the back are several bare white peaks, as if covered with snow.

3.42 Cape St. Vincent (43°19'S., 145°50'E.), a narrow projection fronted by a reef and drying rocks, lies about 1.5 miles NW of North Head, the N entrance point of Port Davey. West Pyramid, an islet, lies about 1.5 miles NW of Cape St. Vincent. From North Head the coast trends ENE 1.2 miles to Pollard Head, and then 1.5 miles in the same direction to Garden Point. There are some sunken rocks close to Pollard Head.

Dangerous sunken rocks exist at the following distances and bearings from Garden Point Light:

- a. 17.9 miles, 302.5°.
- b. 17.7 miles, 302°.
- c. 17.5 miles, 301°.
- d. 15.3 miles, 284°.
- e. 15.1 miles, 268°.
- f. 14.9 miles, 264°.

Caution.—Caution is required in the approach to Port Davey, as hydrographic surveys in the area are incomplete and uncharted dangers may exist.

Port Davey extends 10 miles from its SE to its NW extremity and has several branches. When nearing this port, the land on either side appears rugged and barren, and is steep and mountainous to the E. The entrance is 3.7 miles wide between North Head and Hilliard Head SE of it.

Stokes Rock, with a depth of 15.8m, lies about 3.2 miles NW of Hilliard Head and usually, but not always, breaks.

3.43 Hilliard Head (43°23'S., 145°55'E.), the S point of the entrance to Port Davey, is a high craggy projecting point, with some sunken rocks close to, and a group of islets and rocks SE of it.

East Pyramid, a group of peaked islets, extends about 3.5 miles SE from Hilliard Head. Sugarloaf Rock, about 76m high, the SW and highest of the islets, is somewhat similar in appearance to Big Caroline Islet.

Mutton Bird Island, 3 miles SE of Hilliard Head, is low, with no definite summit; from seaward it looks like part of the coast. There are several islets and sunken rocks between it and East Pyramid.

Big Caroline Islet, about 76m high, is located about 1 mile NNW of Hilliard Head and is a conspicuous pyramidal rock.

From Hilliard Head to Forbes Point, about 0.8 mile NE, the SE shore of Port Davey forms a bay, between which and Big Caroline Islet is Swainson Islet, about 61m high, with some sunken rocks close around it and a dry rock near its NW extremity. There are depths of 12.8 to 18.3m between Hilliard Head and Swainson Islet, and from 14.6 to 27.4m between the head and Big Caroline Islet.

On the E side of Forbes Point is **Norman Cove** (43°22'S., 145°57'E.), about 0.3 mile in extent, having from 7.3 to 9.1m of water in it, from the E side of which the shore sweeps around 0.3 mile to Knapp Point, close off which is Hay Islet, lying about 0.5 mile NE of Forbes Point. Knapp Point has been reported to give a good radar return up to 11 miles.

Hannant Point, which lies in line with Hay Islet and Forbes Point, is a narrow projection separating Spain Bay on the SW side from Hannant Inlet on the NE side of the point. Spain Bay has depths of 14.6 to 20.1m across its entrance, close within which there are two small rocks. This bay, which runs in about 0.8 mile from its entrance has not been sounded inside the small rocks.

Nares Rock, awash at LW, lies about 0.5 mile NW of Knapp Point. There are depths of more than 31.1m between Swainson Islet and Nares Rock, and from 12.8 to 32.9m between the rock and Norman Cove.

3.44 The Shanks Islets (43°21'S., 145°57'E.), eight in number, the highest and largest of which is about 61m high, lie 0.8 mile NW of Hannant Point. These islets, which extend 0.4 mile N and S, have sunken rocks close about them, but there is a clear channel, with depths of 11 to 33m between the shore, about Knapp Point and a line from Nares Rock to the Shanks Islets, and depths of 16.5 to 21.9m from Spain Bay to within 0.2 mile E of the Shanks Islets. A 5.5m patch lies about 0.2 mile N of the summit of the largest islet.

Tides—Currents.—From what was observed during a short period in Port Davey, there appears to be no uniform motion in the tides, neither in their ebbing nor flowing, nor in their rise. It seems that they are greatly influenced by the force and direction of the winds. A range of about 0.6m was observed under normal conditions.

Depths—Limitations.—The soundings across the entrance gradually increase from 9.1m off North Head to 50m in the middle, and then decreasing to 16.5m close to Big Caroline Islet. From a 46m depth midway between Big Caroline Islet and Garden Point, the soundings gradually decrease to 21.9m within 0.1 mile of the islet, and to 16.5m 0.3 mile from Garden

Point. From 9.1m close to Nares Rock, the soundings increase to 42m 1.3 miles in a N direction, and then decrease to 18.3m at 1 mile E of Garden Point.

From O'Brien Point, about 1 mile NE of Knapp Point, the E shore of Port Davey trends NNE 1.5 miles to Turnbull Head, which forms the SE side of the entrance to Bramble Cove. There are depths of 11 to 18.3m about 0.1 mile offshore, except between the Shanks Islets and the mainland, where there is a depth of 8.7m about 0.2 mile from the shore, and at nearly 0.5 mile S of Turnbull Head, where a rocky ledge projects nearly 0.1 mile from the shore.

The Breaksea Islands extend from 0.5 mile N of the Shanks Islets to nearly 1 mile WNW of Turnbull Head. They are three in number, the middle and longest island being 76m high near the center and over 0.5 mile long, the N island is over 0.3 mile long and 78m high while the southern, which is almost joined to the middle island, is about 0.2 mile long and 53m high, but neither of them exceeds 0.2 mile in width.

There is a rock, 3.9m high, near the S end of the S island; the coasts of all have dry and sunken rocks close along them, but there are depths of 16.5 to 24m within 0.1 mile of their W sides, and 5.5 to 24m at the same distance from their E sides, between which and the mainland there are depths of 9.1 to 20.1m.

These islands are joined to the mainland near Milner Head, about 0.4 mile N of Turnbull Head, by a 9.1m bank.

South Passage, the channel between the Shanks Islets and the Breaksea Islands, is 0.3 mile wide, with depths of 18.3 to 29.3m. There are depths of 10.1 to 25.6m from the middle of the passage to within 0.1 mile of the ledge of rocks S of Turnbull Head. Drafts of up to 11m may be carried through this passage to the anchorage in Bramble Cove.

North Passage lies between the Breaksea Islands and Boil Rock, 1.5m high, about 0.3 mile N, with a least depth of 9.1m.

3.45 Bramble Cove (43°20'S., 146°00'E.) is a safe and commodious harbor within Port Davey, having an entrance 0.3 mile wide, with depths of 7.3 to 21.9m, between Turnbull Head and Milner Head. There is a rock 1.8m high close to Turnbull Head, and the edge of the 9.1m bank extends 0.1 mile N of the head.

Within the entrance, Bramble Cove forms a basin extending 1 mile E-W and about 0.8 mile N-S, with regular soundings decreasing from 25.6m in the entrance to about 7.3m about 0.1 mile off the shores, except to the E of Sarah Island, where 7.3m will be found 0.1 mile from the shore, and to the E of Turnbull Head, where there are depths of 21.9 to 40m.

There is a rock, 0.6m high, with some sunken rocks close to the E shore.

Sarah Island, 30m high, lies on the S side of Bramble Cove. It is cleared of trees to seaward and has a cairn on its summit. A rocky ledge, with a depth of 3.7m, extends to a distance of 150m from its N end.

Mount Misery, which is 478m high and very precipitous on its S side, directly overlooks Bramble Cove. It is the S summit of a conspicuous range running about N-S. Mount Berry, 646m high, is the central or highest part of this range and is completely hidden from Bramble Cove by Mount Misery.

The tides in Bramble cove are very irregular. The tidal rise at Bramble Cove is 1.7m at MHHW.

Anchorage.—In Bramble Cove, the best anchorage is with the N end of the Breaksea Islands in line with the S extremity of Milner Head, and the W end of Sarah Island bearing 190°. This position gives good shelter from NW winds, which are reported to be the strongest. The bottom is hard sand. Anchorage anywhere seaward of Bramble Cove is to be avoided if possible, as a shift of wind from the S or SW will bring a heavy sea right into and up the port.

Caution.—It was reported (1994) that a stranded wreck lies 1.5 miles NW of Sarah Island.

Bathurst Channel is a narrow, but deep fairway connecting Port Davey to Bathurst Harbor. The channel has a width of less than 100m in places and should not be attempted without local knowledge. Bathurst Harbor, an extensive sheet of water, is of shoal depth and of no commercial significance.

Port Davey to Southeast Cape

3.46 From Hilliard Head, the coast trends SSE about 13 miles to South West Cape. The land is mountainous and presents a barren and desolate appearance.

South West Cape (43°35'S., 146°02'E.) is bold and remarkable, with a sharp and rugged outline. When approaching from the E, the cape should be given a wide berth, as the prevailing winds are from the W, and the long W swell which rolls in with great force, in conjunction with the current which generally sets to the E and toward the cape, may set a vessel toward the cape.

Caution.—On occasion, there appears to be broken water and evidence of breakers about 0.5 mile S of South West Cape, which might indicate the presence of a sunken rock.

Between two steep rocky heads, about 3.5 and 7 miles ENE of South West Cape, lies a sandy bay divided into two bights by a rocky point, with two clumps of rocks in the entrance.

Cox Bight (43°30'S., 146°15'E.) is a deep, sandy, but exposed bay. From Cox Bight to Louisa Bay, about 4 miles E, the coast rises to Bathurst Range, which attains an elevation of 800m.

Maatsuyker Group (43°38'S., 146°19'E.) consists of two large and several small isles. Maatsuyker Island, the SW of the two principal islands, has a reef projecting to the SW, on which are Needle Rocks. There are several islets and rocks on a reef which extends N from the island. De Witt Island is the NE principal island in the group. There is a sunken reef extending N from De Witt Island midway to Louisa Bay. In 1986, a shoal with a depth of 11m was found midway between the NE point of Flat Witch Island and the SW point of De Witt Island.

About 2.5 miles S of De Witt Island are Flat Top Island and Round Top Island, the highest, with an elevation of 286m.

Mewstone, a cliffy islet, lies about 5.5 miles S of Round Top Island. There are rocks close E and W of it. The Mewstone swarms with birds.

Caution.—On some charts the Maatsuyker Group is charted nearly 2 miles SE of its actual position. Hydrographic surveys in this area are incomplete and uncharted dangers may exist.

3.47 Mount La Perouse (43°30'S., 146°46'E.) is a remarkable table-topped summit with precipitous cliffs along its S and

SE sides. Pinders Peak, about 3 miles WSW of Mount La Perouse, is a conspicuous, thumb-shaped peak. A sharp, remarkable, conical apex, 802m high, rises from a spur trending SE from Mount La Perouse toward Recherche Bay. This apex usually shows out clearly when the higher mountains to the W are obscured.

Another spur trends ESE toward the hills above Whale Head. On this spur the most remarkable part is a dome-shaped, wooded, summit, 488m high, which rises abruptly from the flat country surrounding it. The higher portions of the mountain ranges above 914m elevation are usually rocky and precipitous, but below that altitude the mountain sides and valleys are very thickly wooded.

South Cape Bay lies between South Cape and South East Cape, about 5 miles E. The bay is open and exposed.

Southeast Cape to South Port

3.48 South East Cape (43°38'S., 146°52'E.) is formed by Three Hillock Point on its SW extremity. The cape is a broad projection terminating E at Whale Head; 2 miles N of South East Cape, the land rises to Bare Hill, which is 276m high.

Pedra Blanca (43°52'S., 146°59'E.) and Eddystone are two cliffy islets lying about 15 miles SSE of the cape. The two islets lie on a reef about 1.2 miles apart.

Flying Scud Rock (43°53'S., 146°59'E.), with a depth of 9.1m, lies about 2.7 miles S of Pedra Blanca. Sidmouth Rock, which dries, lies about 1.2 miles ENE of Eddystone Islet.

D'Entrecasteaux Channel (43°36'S., 147°09'E.) is a smooth water passage between the SE coast of Tasmania and Bruny Island, leading from the SW to the Derwent River. The S entrance of this channel extends from South East Cape, 20 miles ENE to Tasman Head, the S point of Bruny Island, with depths of 64m to 82m for the greater part of the distance across. The channel, about 35 miles long, is slightly winding, with the general direction being NNE. The width is irregular, varying from 5 miles within the S entrance to a little more than 0.5 mile in the N entrance. There is a least depth of 9.1m in the channel and 11m in the fairway.

The coast from Whale Head trends NE for 3.3 miles to Second Lookout Point, a rocky projection, on the N side of which is a landing place. Fishers Point, which shows a light, lies about 1.7 miles N of Second Lookout Point and forms the S entrance point of Recherche Bay.

Recherche Bay (43°33'S., 146°55'E.) is entered between Fisher Point and Sullivan Point, 2.5 miles to the NNE. The bay is divided into two arms; Rocky Bay is the S arm and The Pigsties is the N arm. Between these two arms, the Catamaran River, spanned by a bridge, enters the sea.

Rocky Bay is entered between Fishers Point and Needle Point, about 1 mile NNW. Denmark Reef, a 40m patch marked by kelp, lies about 0.4 mile E, with Kelly Rocks, some of which are above-water, between this reef and Needle Point. It was reported (1992) that dangerous underwater rocks lie 300m NW of Needle Point. Rocky Bay is an unsafe anchorage with heavy swells. With S winds a vessel may anchor, in a depth of 6.4m, 0.3 mile E of the Waterhole.

The Pigsties (43°33'S., 146°54'E.) is entered between Ryans Point and Bennetts Point, 0.5 mile to the ENE. Shag Rock, awash at low water, lies in the entrance to The Pigsties.

Anchorage.—An excellent anchorage is afforded in The Pigsties for small vessels with local knowledge. The bottom is such soft mud that a vessel is not injured by it if aground.

3.49 The Actaeon Isles, which lie about 3 miles NE of Recherche Bay, are two isles with numerous rocks and a reef extending out from them. Sterile Isle, the S Actaeon Isle, lies nearly 3.5 miles E from the entrance to Recherche Bay and is covered with grass and bushes. Actaeon Isle, the N of the Actaeon Isles is covered with scrub and grass. A light is shown from the N summit of the island. A number of rocks and shoals lie to the S and W of the isles and can best be seen on the chart.

South Port Lagoon (43°29'S., 146°58'E.) lies with its entrance 2.2 miles NNW of Actaeon Light. The entrance to the lagoon is upwards of 0.1 mile wide, and generally has a heavy surf across it. South Port Bluff lies 1 mile NE of the entrance to the lagoon. A conspicuous tomb stands on the bluff.

South Port Isle, nearly 0.5 mile NE of South Port Bluff, is flat-topped, with a cliffy coast. A small islet lies about halfway between it and the shore. A shoal, with a depth of about 12.8m, lies 0.7 mile NNE of South Port Isle.

South Port (43°27'S., 146°58'E.) lies on the W side of D'Entrecasteaux Channel, and is entered between the rocky point about 1 mile N of South Port Bluff and Rossel Point, about 1.5 miles to the NE. Stack of Bricks, a rock 9.4m high and steep-to on its S side, lies close off Rossel Point. The land on the S shore of South Port is thickly wooded and high. The N shore consists of two bays separated by Burying Ground Point. The village of South Port lies behind the E end of the W bay. There is a jetty at the head of The Deep Hole in the SW corner of South Port.

South Port Narrows, a shallow muddy inlet, is marked at its entrance by buoys. At the W end of the narrows is Major Honners Bay, which opens into two branches, Ida Bay and Hastings Bay. The village of Hastings stands at the head of Hastings Bay.

3.50 Hythe (43°26'S., 146°59'E.) (World Port Index No. 54840) lies at the head of the inner bay of South Port. There is a small pier used mainly by coastal steamers. A conspicuous church in the village is a good landmark.

Anchorage.—The W bay on the N side of South Port affords anchorage, in a depth of 6.4m, sand and mud, but is exposed to S and SE gales. The best berth is in a depth of 6.4m, about 0.4 mile S of Hythe pier. A second berth is in a depth of 11m, about 0.2 mile SSW of Pelican Islet (43°27'S., 146°58'E.).

South Port to Dover

3.51 Burnett Point (43°26'S., 147°02'E.) lies 1.5 miles NNE of the entrance to South Port. The coast in this vicinity consists of cliffs about 30.5m high. Sisters Bay and Lady Bay are two indentations, in which the depths range from 5.5 to 18.3m, sand. From the S entrance point of Sisters Bay, a reef with a rocky islet extends about 0.2 mile to the E.

Port Esperance (43°20'S., 147°03'E.) is entered between Scott Point and Esperance Point, about 1.7 miles to the N. Its navigable width is reduced by a rocky bank, with depths of less

than 11m, which extends about 0.4 mile N of the N side of Scott Point.

Anchorage.—The area in this port which is available for anchoring is restricted by Hope Island (43°20'S., 147°03'E.), which lies close to the S edge of a bank, with depths of less than 9.1m, extending about 1.5 miles S from a position about 1.2 miles NE of Esperance Point. A light is shown from the E end of Hope Island.

The main anchorage for the port lies 1 mile WNW of Hope Island, in a depth of 25m. A sheltered anchorage, 0.3 mile wide, lies in the channel, in depths of 13 to 40m S of Hope Island. Another anchorage lies in a depth of 11 to 15m, 0.2 mile NNE of Hope Island Light.

3.52 Dover (43°19'S., 147°01'E.) (World Port Index No. 54830) lies in the NW part of Port Esperance. There is a wharf, marked by a light, with a frontage of 31m and a depth alongside of 6.1m, available for vessels drawing up to 5.5m.

Huon Island lies 4 miles NE of Esperance Point and about 1.7 miles E of Huon Point. The island is wooded and conspicuously green. There are some houses and a small pier on its N side. A light is shown on the SE side of the island. A light is also shown from a position 1 mile N of Huon Island Light, near Charlotte Cove (43°16'S., 147°09'E.).

The **Huon River** (43°15'S., 147°05'E.) is about 2.7 miles wide at its entrance between Huon Point and Ninepin Point, 2.7 miles to the E. The river entrance W of Huon Island has depths up to 46m. Off Cygnet Point, 3 miles above the entrance, on the E side of the river, there are depths of 28 to 29m. Off One Tree Point Light, 8 miles above the entrance, there are depths of 18.3 to 20.1m, decreasing to 7m about 1.5 miles above the light on One Tree Point.

Garden Island lies on the E side of the Huon River just inside the entrance. The island about 0.7 mile in length, N-S, and shows a light on its SW side. The N part of the island lies in Garden Island Bay.

Cygnet Point lies 2 miles NW of Garden Island Light. The point is the SE entrance point to Port Cygnet. The port extends 4 miles N from the point. The E shore of Port Cygnet is broken and irregular, consisting of points and bights. There are several small jetties on the W side of Port Cygnet, in which the general depths are 11 to 20.1m. The head of the port dries. Beaupre Point, the NW entrance point to the port, shows a light. The town of Cygnet lies at the head of the port.

3.53 Port Huon (43°10'S., 146°59'E.) (World Port Index No. 54810) lies on the N side of Hospital Bay, about 0.2 mile W of Shipwrights Point. The port consists of a pier, the E side of which is 173m in length with a depth of 7.6m alongside, and the W side is 203m in length with a depth of 9.7m alongside. The least depth in the approach channel is 9m. There is a jetty for small vessels about 0.3 mile W of the pier. A light is shown from the head of the pier.

A T-head jetty, extending about 0.1 mile offshore, is situated on the S shore of Hospital Bay. It has a length of 82.3m alongside the outer face, with a depth of 8.2m (1995) alongside. Mooring buoys and dolphins are situated close off each end of the T-head and lights are shown from the head of the jetty. The ruins of a jetty lies close SE of the above jetty.

Pilotage.—Pilotage is compulsory for vessels of over 35m in length, unless exempted. Requests for pilots, giving the ship's ETA at the pilot station, should be made to the Harbormaster, Hobart, at least 24 hours in advance.

Pilots board, as follows:

1. If approaching from the N—1.5 miles E of Kellys Point. Confirmation or amendment of ETA should be made 2 hours in advance.
2. If approaching from the S—1.5 miles ESE of Burnett Point. Confirmation or amendment of ETA should be made 7 hours in advance.

Anchorage.—There is good anchorage in Hospital Bay, with plenty of room for small vessels, in a depth of 9.1m, at a distance of 0.3 mile, bearing 235° from Shipwright Point, soft mud. Large vessels can take anchorage about 0.3 mile W of **Bullock Point** (43°11'S., 146°59'E.), in a depth of 12.8m, mud.

Huon Island to North West Bay

3.54 Arch Islet (43°17'S., 147°11'E.) is a perforated rock, 15.3m high, lying 1.5 miles E of Huon Island and 0.5 mile offshore.

Anchorage.—Anchorage may be taken, in a depth of 10.9m, about 0.2 mile NE of Arch Islet.

Three Hut Point lies 3 miles NE of Arch Islet. The village of Gordon lies close behind the point. There is a pier off the village that is available to vessels of 2.4m drafts.

During W and NW winds, an anchorage is afforded, in a depth of 8.3m, good holding ground, off Three Hut Point.

Middleton (43°14'S., 147°16'E.) (World Port Index No. 54780) lies 2.5 miles NNE of Gordon. A lighted beacon stands at the end of a submarine cable, 0.5 mile SSE of Middleton.

Anchorage.—Anchorage can be taken, in 8.2m, 0.5 mile N of the lighted beacon and 0.3 mile offshore. A beacon is moored close W of the anchorage.

Green Islet, which is grass-covered, lies in the middle of D'Entrecasteaux Channel, about 2.5 miles NNE of Middleton. Depths of less than 11m extend about 0.3 mile E of this islet. A light is shown on the W side of the islet.

Woodbridge (43°10'S., 147°15'E.) is a village that stands on the cliffs at the head of Peppermint Bay. A small jetty fronts the village.

Anchorage.—Anchorage may be obtained, in a depth of about 11m, mud, about 0.4 mile off the village. A light is shown from the jetty.

Little Oyster Cove lies 2 miles N of Peppermint Bay. The cove is 0.3 mile across the entrance and recedes 0.8 mile, with depths of 9.1 to 14.6m in the outer portion. The inner part, with depths of 5.5 to 6.4m, has several jetties on the S side with depths up to 3.6m alongside. A light is shown from a ferry wharf near the W end of the cove.

Channel Rock (43°07'S., 147°17'E.) is a small rocky patch 0.1 mile in extent and having a depth of 3.7m. The rock lies 0.2 mile S of Simmonds Point beacon. When approaching this area vessels should keep well to the E of the rock. A submarine cable is laid across the channel in an E direction from Simmonds Point to Woodcutters Point on North Bruny Island. The shore landings are marked by beacons on both points and anchorage is prohibited within 0.1 mile of the line of these marks.

North West Bay (43°03'S., 147°17'E.) is entered between Snug Point and a point about 1.5 miles to the NNE. Within its entrance the bay extends 4 miles in a N direction and 2 miles from its entrance to its W shore. A number of villages dot the shores of the bay. A T-shaped jetty for explosives is situated on the E shore of the bay. Marine farms have been established in the bay.

3.55 Electrona (43°04'S., 147°16'E.) (World Port Index No. 54775) lies on the W side of the bay, about 2.2 miles NW of Snug Point.

Pilotage.—Pilotage is compulsory for all vessels over 35m in length. Vessels bound for Electrona Jetty embark the pilot 1.5 miles E of Kelly Point, the N extremity of North Bruny Island.

Requests for pilots, giving the ship's ETA at the pilot station, should be made to the Harbormaster, Hobart, at least 24 hours in advance; confirmation or amendment of the time should be made at least 2 hours before arrival in the case of ships embarking a pilot off Kelly Point.

Anchorage.—Anchorage may be obtained, in a depth of 12.8m, about 0.6 mile NW of Hurst Point.

Margate (43°02'S., 147°16'E.) (World Port Index No. 54770) is a small town which lies about 1.5 miles N of Electrona. There is a small jetty, with a depth of about 3.6m at its head, situated at the fish cannery about 1 mile S of Margate. A light is shown from the jetty.

Anchorage.—Anchorage may be obtained, in depths of 11 to 12.8m, about 0.6 mile SE of Dru Point (43°02'S., 147°17'E.).

Pierson Point (43°03'S., 147°21'E.) lies 1.5 miles ENE of the N entrance point to North West Bay. The point is high and cliffy and forms the NW side of the N entrance of D'Entrecasteaux Channel. A light is shown from Pierson Point.

Anchorage.—Anchorage may be obtained in Tinderbox Bay, 0.7 mile SW of Pierson Point, in a depth of 14.6m, mud bottom.

Bruny Island

3.56 Bruny Island (43°18'N., 147°18'E.) is 27 miles long from Tasman Head to Kelly Point in a S-N direction. The island is 9 miles wide across its S side. The W coast of the island forms the E shore of D'Entrecasteaux Channel. Bruny Island consists of South Bruny Island and North Bruny Island, which are connected by a narrow sandy isthmus lying between Isthmus Bay to the W and Adventure Bay to the E.

Bruny Island—South and West Coasts

3.57 Tasman Head (43°31'S., 147°18'E.), the S point of South Bruny Island, forms the NE point of the S entrance point of D'Entrecasteaux Channel. The headland is high, abrupt, and composed of basaltic pillars. Bridge Rock (Arched Rock), 52m high, lies about 0.1 mile offshore, SE of Tasman Head.

Friar Rocks lie from 0.5 mile to 1.2 miles S of Tasman Head. Passage between the N rocks and Tasman Head is reported to be free of dangers, but passage between the rocks should not be attempted. The sea breaks over the S rock of the group.

Cloudy Bay (43°29'S., 147°13'E.), a bight in the S end of South Bruny Island, exposed to all the fury of SW gales, is 3 miles wide at its entrance between East and West Heads. The bay extends 3.2 miles to the N to a long narrow tongue of land which separates the bay from Cloudy Lagoon. With the exception of small craft, no vessel should anchor in Cloudy Bay unless it is absolutely necessary to do so, in which case the best position is in Mabel Bay (Half Moon Bay).

Cape Bruny (43°30'S., 147°09'E.), the SW point of South Bruny Island, lies 1.5 miles SSW of West Cloudy Head. A light is shown on Cape Bruny. The land near the cape is covered with grass and scrub, and about 0.7 mile NNW of the cape is Mount Barren, a good landmark. Courts Isle extends from a few meters to 0.5 mile S of the cape.

A rocky bank, with depths of 22 to 33m, extends about 2.2 miles SW from Cape Bruny. The sea breaks over this bank in heavy weather.

Standaway Bay extends from Cape Bruny NW 4 miles to Point Labillardiere, 1 mile S of Hopwood Point, which shows a light. Mount Bleak, 155m high, rises close E of Point Labillardiere. This point has been reported to give good radar returns up to 16 miles.

3.58 Partridge Isle (43°24'S., 147°06'E.) lies 0.7 mile NNE of Hopwood Light.

There is anchorage, in 18.3m, mud bottom, with Hopwood Point in line with the S extremity of Partridge Isle, bearing 216°, and the N extremity of the island bearing 317°.

Pilotage.—Pilots for ports in D'Entrecasteaux Channel or the Huon River board vessels from a motor boat between the S end of Partridge Isle and the E end of South Port Isle. Vessels bound for Hobart or Port Huon requiring a pilot off Partridge Isle should notify the harbormaster at least 24 hours prior to the ETA off the isle.

Great Taylor Bay (43°25'S., 147°09'E.) is 2.5 miles wide at its entrance and 3.5 miles long in a S direction. Partridge Isle forms the W entrance point of the bay. Depths in the bay range from 31m at the entrance to 14.6 and 16.4m 1 mile from the head of the bay, then gradually shoaling. A small pier is situated on the W side of the head of the bay.

Great Taylor Bay is too large to afford shelter from gales at all times, although the bottom is black mud, it is hard and vessels have dragged their anchors, even with a long scope of chain.

Anchorage.—Anchorage may be taken off the E side of Partridge Isle, in a depth of 18.3m, mud and sand, about 0.3 mile E of its E extremity (43°24'S., 147°07'E.).

3.59 Ventenat Point (43°21'S., 147°12'E.) lies 4.5 miles NE of the N extremity of Partridge Isle and forms the W side of the entrance to Little Taylor Bay. There are shoal patches 8 and 10m lying 1 mile N and NW, respectively, of Ventenat Point, and a reef marked by a beacon extends about 0.1 mile N from the point.

Zuidpool Rock (43°20'S., 147°10'E.), which is steep-to, lies near the middle of D'Entrecasteaux Channel, 1.7 miles NW of Ventenat Point. A light is shown on Zuidpool Rock.

Little Taylor Bay lies on the SE side of D'Entrecasteaux Channel and is entered between Ventenat Point and a point about 1.5 miles ENE.

Anchorage.—Anchorage may be obtained, in depths of 7.3 to 9.1m, sand and mud, between 0.5 mile and 0.7 mile SE of Ventenat Point, sheltered from S and W winds. The bay is available for large vessels, but the anchorage cannot be considered good. Daniels Bay is a shallow bight on the E side of the bay and is not recommended as an anchorage.

3.60 Satellite Island (43°19'S., 147°13'E.) lies about 1 mile N of the E entrance point of Little Taylor Bay. The island is cultivated and has a thick grove of trees on its W side. There is a pier, with a depth of 2.4m, on the NE side of the island. About 0.7 mile ENE of the island stands the village of Alonnah, at which there is a breakwater. A light is shown on each corner of the seaward end of the breakwater. A stranded wreck, marked by a light, lies about 0.3 mile SW of the breakwater. A light is shown from the shore about 1 mile NNE of Alonnah Breakwater.

Isthmus Bay (43°15'S., 147°19'E.) is entered between Simpsons Point, the N extremity of South Bruny Island, and The Bluff, 2.5 miles E of Simpsons Point. The E shore of the bay consists of a narrow isthmus, which is bordered by a flat on its W side, and which joins South Bruny Island to North Bruny Island in its center and separates the waters of D'Entrecasteaux Channel from those of Adventure Bay. The village of Simpsons Bay lies on the W side of the bay. There is a small pier, for vessels drawing 2.4m, close off the village.

Great Bay is entered between the N entrance point of Little Fancy Bay and Stockyard Point, about 1.7 miles to the NW. Depths in the bay are 9.1m at the entrance, shoaling gradually to 5.5m at 0.5 mile from the head of the bay. Adams Bay, which is mostly shallow, lies in the NE portion of Great Bay, and Ford Bay, also shallow, lies in the S part of the bay.

Missionary Bay (43°11'S., 147°19'E.) lies between Stockyard Point and Soldier Point, 1.5 miles to the W. Depths in the bay range from 8m in the entrance to about 2m at the head of the bay. Snake Islet lies 0.5 mile NW of Soldier Point and is grass covered. A rocky patch extends 0.2 mile SW from the S side of the islet. A beacon marks the SW edge of the patch.

Kinghorne Point, which shows a light, lies about 0.7 mile NW of Snake Islet. Roberts Point which also shows a light, lies 1.5 miles N of Kinghorne Point and forms the N entrance point to Apollo Bay, which has depths of 9.1 to 16.5m. Leading lights, in line bearing 194°, are established 0.6 mile ENE of Roberts Point.

3.61 Barnes Bay (43°08'S., 147°20'E.) lies between Lennonville Point, which shows a light, and a rounded projection 0.9 mile to the ENE. Immediately S of Lennonville Point is a small cove in which small vessels may anchor, in a depth of about 12.8m. Sykes Cove forms the S part of the bay. In the NE corner of the bay is a narrow channel leading into Simmonds Bay, an inlet extending N-S with depths of 5.5 to 7.3m in either end. A light is shown on the S side of the inlet. Shelter Cove lies on the NW side of Barnes Bay and on its E side stands the quarantine station. There is a small pier for boats off the quarantine station; a light is shown from Quarantine Point, about 0.7 mile S of the small pier.

There is anchorage, in a depth of 18.3m, mud, at the entrance to Shelter Cove, partially sheltered from NW winds.

Bligh Point, which shows a light, lies 2.5 miles N of the entrance to Barnes Bay. In the bights on both sides of Bligh Point there is shoal water. From this point, the coast trends about 2 miles in a NE direction to Kelly Point, which forms the SE side of the N entrance of D'Entrecasteaux Channel.

The channel entrance has depths of 10.9 to 14.6m in the fairway. There is a considerable amount of kelp off Kelly Point; shoal water extends for 0.1 mile to the N and 0.1 mile to the W of the point.

Bruny Island—East Coast

3.62 Bull Bay (43°05'S., 147°22'E.) lies about 1.2 miles SSE of Kelly Point and is entered between Cape de la Sortie and Bull Bay Point, 1.2 miles to the SSE.

Anchorage.—Anchorage may be obtained, in a depth of about 12.8m, sand, about 0.3 mile N of Bull Bay Point.

Yellow Bluff (43°08'S., 147°24'E.) which may be identified by its conspicuous yellow cliffs, lies 2.5 miles SSE of Bull Bay Point. Trumpeter Bay lies 1.5 miles S of Yellow Bluff and is opened to SE winds. There are a few houses near the shore, as well as a landing place on the sandy beach near the center of the head of the bay, off which is the best anchorage, in depths of 14.6 to 18.3m.

Variety Bay lies 2.5 miles SSE of Trumpeter Bay. The shores of the bay are thickly bordered with kelp extending up to 0.2 mile offshore. In the S part of the bay, a small vessel may obtain some shelter from SE winds in a depth of about 18.3m, about 0.1 mile outside the kelp.

Cape Queen Elizabeth (43°15'S., 147°26'E.) is a precipitous grassy bluff which lies 3 miles S of Variety Bay. The Hounds Tooth, a bare rock of conical shape, lies close off the cape. The cape forms the SE extremity of North Bruny Island.

Adventure Bay is entered between Cape Queen Elizabeth and Penguin Islet, about 6.2 miles SSW. The W side of the bay is formed by the sandy isthmus that connects North Bruny Island with South Bruny Island. The SW part of the isthmus is flat with scattered trees, and the NE part is composed of sand hills.

The depths in the bay are regular, over a sandy bottom, depths of 18.3m being generally found about 0.5 mile offshore. Vessels should avoid anchoring in the vicinity of Moorina Bay, as the bottom is rocky and uneven.

The best berth is off a small sandy bight about 0.7 mile WSW of Penguin Island in a depth of 18.3m, with good holding ground and protected from all but N and NE winds.

Fluted Cape (43°22'S., 147°23'E.) lies about 1 mile SE of Penguin Island. The cliffs of the cape are composed of basaltic columns and are from 213 to 235m high. The summit of the cape, which is well-marked, is 290m high, and like the neighboring country is thickly wooded. Cape Connella, a bold bluff, lies about 1.5 miles S of Fluted Cape.

Mangana Bluff, a bold headland, lies about 3 miles SSW of Cape Connella. Close S of the bluff lies Arched Islet, flat-topped and 24.4m high. Boreel Head lies 1.5 miles NE of Tasman Head and consists of a double-headed point, which forms a bold headland rising to an elevation of 232m at its N end.

The Derwent River

3.63 The **Derwent River** (43°00'S., 147°02'E.) from its entrance between Cape de la Sortie and Iron Pot Islet, which shows a light, trends N about 11 miles to Hobart, above which it extends 120 miles to its source. The river has a width of about 2 miles from its entrance to the SE part of Hobart and a least depth of about 15.2m in the fairway.

A submarine cable is laid across the river from a position about 3 miles N of Iron Pot Islet. Anchorage is prohibited within 0.5 mile of the cable; the landing places are marked by a beacon on each shore.

The Derwent River—West Shore

3.64 The W shore of the river from Peirson Point trends 2.5 miles NNW to the S point of Blackman Bay. The bay extends N-S for 0.5 mile and indents the coast for about 0.3 mile. Depths in the bay range from 10.9m at the entrance to 1.8m at its head.

Kingston Bay (42°59'S., 147°19'E.) lies about 1.5 miles N of Blackman Bay. Depths in the bay range from 16.4 to 21.9m in the entrance, to 1.8 to 2.7m at its head. Browns River Entrance is located on the NW side of the bay and the town of Kingston Beach stands on its S shore.

Alum Cliffs, which are conspicuous, extend from the N side of the entrance to the Browns River, to the SW end of Taroona Beach, about 0.5 mile SW of **Crayfish Point** (42°57'S., 147°21'E.). A red beacon stands close off Crayfish Point.

Blinking Billy Point (42°55'S., 147°22'E.) lies 2.2 miles N of Crayfish Point. The point is rocky, and from it, John Garrow Shoal, with depths of less than 11m, extends about 0.3 mile to the E. A light is shown inside the shoal from a position about 0.3 mile E of Blinking Billy Point. A light is shown 0.5 mile SW of Blinking Billy Point. Little Sandy Bay lies between Blinking Billy Point and Sandy Bay Point, about 0.3 mile NNW. A dolphin stands close inshore at the S end of the bay.

Submarine pipelines extend E and ESE from Blinking Billy Point, terminating at the 5m and 20m depth curves, respectively.

Sandy Bay (42°54'S., 147°20'E.) is entered between Sandy Bay Point and Battery Point, about 1.5 miles NW, and is backed by the suburb of Sandy Bay. A conspicuous casino and hotel stand on Wrest Point; a radio mast stands about 1 mile SW of the casino. A T-headed pier, with a depth of 2m alongside, lies about 100m W of Wrest Point.

The Derwent River—East Shore

3.65 The E shore of the river from Cape Direction to Gellibrand Point, about 5 miles N, is formed by a peninsula, mostly covered with trees, which separates the S portion of Ralph Bay from the Derwent River. The peninsula is mostly low land, but there are two fair size hills; the higher stands about 0.5 mile NW of Cape Direction while the smaller lies 2 miles S of Gellibrand Point.

Half Moon Bay (43°01'S., 147°24'E.) is entered between Johns Point and The Pigeon Holes, about 1.7 miles to the N. The head of the bay consists of a sandy beach and has depths of 5.5m, about 0.1 mile off the beach. The town of South Arm,

off which there is a small pier, stands on the SE shore of the bay.

It was reported (1994) that a buoy, marking foul ground, has been established in approximate position 43 01.5'S, 147 22.5'E. Mariners are advised to steer well clear of this area.

Opossum Bay, which has a sandy beach, lies between a point about 1 mile N of The Pigeon Hole and White Rock Point, about 1 mile farther N. Depths of 5.5m extend about 0.1 mile offshore, and the town of Opossum Bay stands at the S end of the bay. A light is shown on White Rock Point.

Ralph Bay (42°57'S., 147°26'E.) is entered between Gellibrand Point and Trywork Point, 1.5 miles N. The entrance to the bay between the two points is about 1.2 miles wide and has a depth of from 12.8 to 26m, but inside the bay the water is mostly shallow.

Mortimer Bay is an indentation of the E shore of Ralph Bay, between 2 and 3 miles ESE of Gellibrand Point. From Maria Point, the NW extremity of Mortimer Bay, the E shore of Ralph Bay trends N 3.5 miles to the foot of Mount Mather.

Tranmere (42°55'S., 147°25'E.), the SE suburb of Hobart, lies at the foot of a narrow peninsula and about 2 miles N of Trywork Point. About 1 mile N of Tranmere Point is Punchs Reef, with depths of less than 11m.

Kangaroo Bluff lies about 2 miles WNW of Punchs Reef. The bluff forms the S entrance point of Kangaroo Bay and the NW point of the quarantine anchorage for Hobart. A light is shown on Rosny Point, the W entrance point to Kangaroo Bay.

Hobart (42°53'S., 147°20'E.)

World Port Index No. 54760

3.66 Hobart, the capital city of Tasmania, situated on the Derwent River, also serves as a principal port and maintains a port control station. Contact on VHF channel 16 (listening frequency) and VHF channel 12 (working frequency) with the port may be established at a range exceeding 50 miles. This extended range enables passing vessels to establish contact with Hobart Port Control.

Hobart Ports Corporation

<http://www.hpc.com.au>

Tides—Currents.—The tides at Hobart are irregular; the maximum rise and fall is 1.4m. The flood current is barely perceptible between Iron Pot Islet and Kelly Point, but from this point to Hobart it attains a rate of 0.5 knot. Between Macquarie Point and Rosny Point, the ebb current runs 1.5 knots at half tide; off Battery Point it runs about 170°, sweeping around Sandy Bay at the rate of 0.8 knot, and after passing Sandy Point, its strength gradually decreases to 0.5 knot at the entrance to the river.

Depths—Limitations.—The Tasman Bridge spans the Derwent River about 1 mile N of Rosny Point. The center span, with a navigable width of 73m and a vertical clearance of 45m, is authorized for use by vessels over 25m in length. The two adjacent spans, each with a navigable width of 44m and a vertical clearance of 44m, are authorized for vessels between 25 and 15m in length. Vessels 15m long and less may use the

spans outside the spans mentioned above. Vessels more than 50m may not approach within 0.2 mile of the bridge when visibility is less than 1.5 miles. A height restriction of 47.0m exists between the center span.

Hobart Port Facilities (2003)			
Berth	Length	Depth	Remarks
Prince's Wharf			
Inner	73m	7.5m	
1	138m	7.9m	Ro-ro.
2	95m	7.9m	
3	85m	8.4m	
4	120m	6.6m	Ro-ro.
Elizabeth Street Pier			
South	157m	7.8m	
North	153m	7.2m	
Macquarie Wharf Complex			
1	169m	6.0m	Containers.
2	154m	8.8m	Ro-ro.
3	175m	10.0m	
4	244m	12.0m	
5	135m	11.0m	
6	189m	10.5m	
Self's Point Petroleum Product Wharf			
1	100m	14.0m	T-head wharf, 258m between dolphins.
Risdon Wharfs			
Acid	158m	9.8m	Zinc and phosphate
1	156m	9.8m	Potash.
2	152m	9.8m	Cadmium.
3	91m	9.8m	Sulphate.
Shag Bay			
		6.5m	150m into bay.

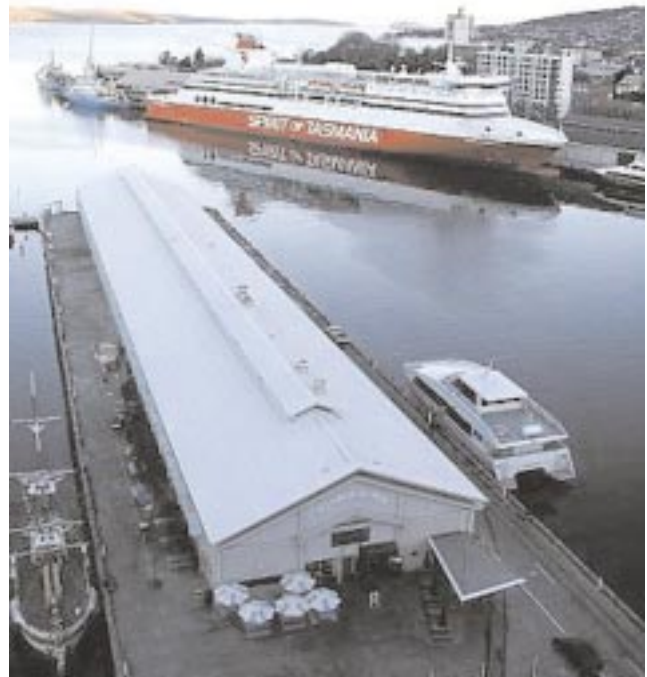
Heading S on the Derwent River, past Macquarie Point, the Macquarie Wharf complex lies on the W bank. At the head of Sullivan's Cove lies the Elizabeth Street Pier. The Prince's Wharf lies on the S side of Sullivan Cove. Risdon Wharfs, which are privately owned, are situated about 2 miles above the Tasman Bridge. Vessels proceeding to Self's Point Oil Berth must also pass under the bridge.

Pilotage.—Pilotage for Hobart is compulsory for vessels over 35m in length, unless the Master holds a current Pilotage Exemption Certificate. Requests for pilotage should be made through the Harbormaster, Hobart, at least 24 hours in advance; the vessel's ETA should be confirmed or amended 2 hours in advance. Vessels bound for Port Huon and Spring Bay should confirm their ETA 6 hours in advance.

When within 6 miles of Iron Pot Light, vessels must display the appropriate signals.

Vessels awaiting pilot should anchor S of 42°55'S, in a depth of 22m, good holding ground.

The port of Hobart includes all waters of D'Entrecasteaux Channel and Storm Bay N of a line joining Southport Islet (43°29'S., 147°01'E.), 15 miles NE of South East Cape to Cape Raoul (43°14'S., 147°48'E.), 37 miles NE and of all bays and estuaries opening either into the channel or the bay.



Courtesy Hobart Ports Corporation

Elizabeth Street Pier, with Prince's Wharf in background

Regulations.—No vessel may anchor or weigh anchor, except in case of necessity, above a line drawn from Sandy Bay Point to Kangaroo Bluff, except under the direction or by permission of the harbormaster. This rule does not apply to vessels anchored out of the fairway and not interfering at all with navigation.

Vessels are forbidden to sound sirens or whistles above a line drawn from Secheron Point to Kangaroo Bluff, except to prevent collision, when short blasts may be sounded as required.

Vessels must not be navigated at such speed as to damage, or be likely to damage, any wharf, shore, or bank, or any other vessel, or to interfere with the navigation of any other vessel, except by permission in writing from the harbormaster.

Vessels entering the harbor are to indicate their intended berth by displaying the appropriate numeral pendant together with the pilot flag. Outbound vessels are to display the International Code answering pendant below the pilot flag.

A copy of the "Rules and Regulations of the Port of Hobart" may be obtained from the harbormaster.

Vessels greater than 35m in length may not pass under the Tasman Bridge on Monday through Friday, from 0700 to 0915 and from 1600 to 1830. A vessel intending to pass under the bridge shall sound one long blast upon entering the main navigation channel.

Anchorage.—Anchorage may be obtained in almost any part of the Derwent River. The safest part on all occasions is on the W side of the river. There are a number of prohibited anchorages which are clearly indicated on the chart.

Merchant vessels with explosives aboard may not anchor N of a line joining **Battery Point** (42°53'S., 147°20'E.) and Rosney Point, nor within 0.2 mile of the shore without the written permission of the harbormaster. Those vessels carrying explosives may anchor off Powder Jetty, about 0.4 mile NNW of Macquarie Point.

The Quarantine Anchorage lies between the latitudes of the John Garrow Shoal Light to the N and White Rock Point to the S, excluding Ralph's Bay. In the anchorage there is a depth of 20m, soft mud.

The Derwent River above the Tasman Bridge

3.67 Cornelian Bay (42°51'S., 147°19'E.) lies on the W side of the river, about 0.7 mile above the bridge. The bay affords anchorage for moderate size vessels, in 8.2m, mud bottom, 0.2 mile from Cornelian Bay Point, bearing 359°. A beacon marks the S end of a shoal projecting from Cornelian Bay Point.

New Town Bay lies on the W side of the river, about 0.7 mile N of Cornelian Bay. The bay is entered between the NE extremity of a peninsula which separates it from Cornelian Bay, and Woodman Point, about 0.5 mile NNW.

Anchorage.—Anchorage for small vessels may be obtained, in a depth of about 5.5m, about 0.2 mile S of **Rock Cod Point** (42°50'S., 147°19'E.). A beacon marks the edge of a bank 0.1 mile E of Rock Cod Point.

Lindisfarne Bay (42°51'S., 147°21'E.) lies on the E side of the river, about 0.5 mile NE of the Tasman Bridge. A beacon marks the edge of the coastal bank close S of Lindisfarne Point, on which there is a monument. A marina lies close NE of the point. A beacon stands on the edge of the coastal bank on the E side of the bay, 0.2 mile E of Lindisfarne Point.

Anchorage.—Anchorage may be obtained by a moderate-sized vessel, in a depth of about 9.8m, about 0.1 mile S of Lindisfarne Point, but it is not recommended. A number of small piers stand on each side of the bay.

Geilston Bay is located on the E side of the river, about 1 mile NW of Lindisfarne Bay, and is entered between Limekiln Point and Bedlam Walls Point. The bay is mostly shoal. Shag Bay, a small inlet, lies about 0.5 mile NW of Geilston Bay.

Prince of Wales Bay (42°50'S., 147°18'E.) is a large, but shallow, inlet divided into three arms, with a common entrance on the W side of the river, on the S side of Dowsing Point. A wharf extends from Doss Point, 0.2 mile inside the entrance to the bay. A tower stands on a hill about 0.3 mile W of Doss Point.

There is anchorage, in a depth of about 15.5m, about 0.2 mile E of Dowsing Point.

Cape Direction to Cape Pillar

3.68 Hope Beach (43°02'S., 147°27'E.) forms a slight curve extending from Cape Direction in a ENE direction for 3 miles to Goat Bluff, a small cliffy point, on which there is a small hillock. The beach, which is low and narrow, is the only barrier between Ralph Bay and the sea.

Betsys Island, about 1.2 miles long and 0.5 mile wide, lies about 1 mile S of Goat Bluff. The island is bold and precipitous; landing can only be made on the N side on a cobblestone beach near a ruined hut. Little Betsy Islet lies about 0.2 mile to the S. A number of rocks on which the sea breaks lie about 0.3 mile SSE of Little Betsy Islet.

Black Jack Rocks (43°02'S., 147°29'E.) lie in the middle of the passage between Goat Bluff and Betsy Island. The passage forms a convenient short cut for small vessels proceeding between Hobart and Frederick Henry Bay. A light is shown from the rocks.

Frederick Henry Bay (42°55'S., 147°35'E.) is entered between Cape Deslacs and North West Head, 3 miles E. The bay indents the coast 9 miles from its entrance to its head and is from 5 to 6 miles wide. The bay is fairly clear of dangers and has depths of 18.3 to 20.1m at its entrance and 7.3m about 0.5 mile off its head.

Pipe Clay Lagoon lies in the SW part of the bay, about 1.7 miles NW of Cape Deslacs. Single Hill lies on the NW side of the bay and shows an aero light from its summit.

Mount Rumney (42°52'S., 147°27'E.), 2.2 miles WNW of Single Hill, also shows an aero light. Aero lights are also shown 5.2 and 5.5 miles NNE of the summit of Mount Rumney.

3.69 Seven Mile Beach (42°51'S., 147°33'E.) forms the head of Frederick Henry Bay. At the E end of the beach is a narrow opening which leads into Pitt Water, a shallow lagoon. Spectacle Island lies 1.2 miles S of the entrance to Pitt Water and close W of Spectacle Head. Carlton Bluff lies 2 miles ESE of Spectacle Island and looks like an island from the bay. On its N side is the entrance to the Carlton River, used by ketches at HW.

Bass Shoal, with depths of less than 11m and a least depth of 5.8m near its SE corner, lies across the approach to Norfolk Bay, between the N end of Sloping Island and Carlton Bluff. Isle of Caves lies on the NE corner of Bass Shoal and derives its name from two caves in the cliff at its SW corner.

The E side of the approach to Frederick Henry Bay, extending from Outer North Head 4.5 miles N to North West Head, is a bold, broken up shore, on which the sea always breaks heavily, rendering landing practically impossible. It is steep to all along and in places lined with kelp.

Outer North Head (43°04'S., 147°38'E.) is a yellow, bold, cliffy point. Flat Rock, on which the sea always breaks, lies about 0.2 mile SW of the head. Foster Rock, which breaks in heavy weather, lies 0.3 mile W of Outer North Head. Storm Cove lies 2.7 miles N of the head and is surrounded with kelp, behind which fishing boats obtain shelter from W winds.

North West Head (43°00'S., 147°38'E.) lies 4.5 miles N of Outer North Head and forms the E entrance point to Frederick Henry Bay. Sloping Main, a white sandy beach with a small pier near its S end, lies about 2.5 miles NE of North West Head. Sloping Island lies 2.5 miles NNW of Sloping Main.

The island is about 1 mile long and partly wooded. A small islet lies off its SW side.

Green Head (42°56'S., 147°40'E.), a yellowish cliffy point, forms the N extremity of the Tasman Peninsula. The approach to Norfolk Bay lies between Green Head and Renard Point, about 2.2 miles N. Hog Islet lies about 0.5 mile SW of Green Head.

Flinders Channel, the main channel into Norfolk Bay, is entered from Frederick Henry Bay close N of Sloping Island and S of Bass Shoal. The channel is about 0.5 mile wide and contains no known dangers. The channel between the N end of Bass Shoal and Carlton Bluff has a least depth of 11.3m; to the E it joins Flinders Channel.

3.70 Norfolk Bay (42°58'S., 147°47'E.) is bound on the W and S sides by the Tasman Peninsula and on the E side by the Forestier Peninsula. It is perfectly landlocked, clear of dangers, and affords anchorage, in depths of 12.8 to 18.3m, good holding ground. A marine farm, best seen on the chart, has been established in Norfolk Bay.

From Renard Point, the coast extends to the E in a succession of small bays and low grassy points for 5 miles to Dunalley Bay. A range of well-wooded hills extends along the coast with occasional cleared patches and farm houses. Fulham Island lies on the W side of Dunalley Bay and has been reported to be a good radar target for up to 18 miles.

Dunalley Bay (42°55'S., 147°47'E.), which is fronted by a drying sand bank, lies between the point about 0.4 mile NNE of Fulham Island, and Dunabin Point, about 2.2 miles SSE, and has depths of less than 5.5m extending about 1.5 miles offshore. Smooth Island lies on the SW end of the shore bank in Dunalley Bay.

There is good anchorage, in depths of 7.3 to 9.1m, under the SE part of Smooth Island.

The **Denison Canal** (42°54'S., 147°48'E.), which is spanned by a swing bridge near its SW entrance, is only used by small vessels with local knowledge. The canal should be transited only at high tide. A superintendent is in charge of all traffic passing through the canal. The canal will only be used between the hours of 0800 and 1445. There is a minimum depth of 2.2m in the canal. A depth of 1.4m exists over a shallow area, close NE of the E entrance.

Traffic signals are shown on the W side of the canal, about 0.1 mile within the SW entrance. Green or red leading lights are shown on the W side of the SW entrance, and in line bearing 024°, lead through the SW approach channel.

The approach channels to the canal and the dredged cut are all marked by beacons.

Traffic signals for outbound vessels are shown from the N side of the canal. Two red lights, disposed horizontally, indicate the channel is obstructed. A green directional light bearing 264° indicates that vessels may proceed, and marks the channel.

Information regarding the Denison Canal and the Marion Narrows can be found in the Publications section of the Marine and Safety Tasmania website.

Marine and Safety Tasmania

<http://www.mast.tas.gov.au>

3.71 Dunalley (42°53'S., 147°49'E.), a small town, is situated close N of the NE entrance to the canal. Two piers front the town, and two small piers lie 0.2 mile NE. The piers are used mainly by fishing boats.

King George Island lies on the E shore of Norfolk Bay, about 1.5 miles E of Smooth Island. Between the island and Chronicle Point, about 0.5 mile SW, is the entrance to King George Sound, a shallow inlet at the head of which is the village of Murdunna. There is a ruined jetty about 0.4 mile NW of the village; several small jetties front the shore to the W.

Flinders Bay (42°59'S., 147°50'E.) lies 1 mile S of King George Sound. There are depths of 12.8m in the entrance; the depths gradually decrease to the head of the bay. From about 0.7 mile S of the S entrance point of the bay, **Flinders Reef** (43°01'S., 147°50'E.), a foul spit, extends about 0.3 mile SW.

Eaglehawk Bay lies about 2 miles SSE of Flinders Bay and is entered between Heather Point and Dart Island. The bay narrows from its entrance into a long inlet; its inner 1.5 miles is shallow. At its head is Eaglehawk Neck, a narrow isthmus, which is only about 20m wide in one place. This neck connects the Forestier Peninsula with the Tasman Peninsula and separates Eaglehawk Bay from Pirates Bay, on the E coast of Tasmania. There is a ruined jetty on the N shore near Eaglehawk Neck.

Little Norfolk Bay (43°02'S., 147°51'E.) is entered between Dart Island and Mason Point and lies on the S side of Eaglehawk Bay. The bay is a shallow inlet, apart from a narrow channel in its center of somewhat deeper water. There is good shelter for one vessel, in a depth of 7.3 to 9.1m, during heavy NW weather, under Dart Island. On its E shore near the head of the bay is the village of **Taranna** (43°03'S., 147°52'E.), off which there is a ruined pier. Another ruined jetty lies on the W side of the bay.

Cascades Bay lies about 1.5 miles SW of Little Norfolk Bay. The village of Koonya stands in a shallow cove in the SW part of the bay. The village is fronted by a ruined jetty. Impression Bay lies 2 miles W of Cascades Bay. Prices Bay lies close NW of Impression Bay. Two jetties stand at the head of Prices Bay. **Ironstone Point** (42°58'S., 147°45'E.), a low point covered with trees, lies about 1.2 miles SSE of Whitehouse Point.

3.72 Storm Bay (43°08'S., 147°31'E.) is bounded W by the E side of North Bruny Island from Cape Queen Elizabeth to Cape de la Sortie. Cape Direction to North West Head forms the N end of the bay; Outer North Head to Cape Raoul forms the E coast of the bay.

Wedge Bay (43°07'S., 147°42'E.) lies about 3.5 miles SE of Outer North Head and is entered between Lory Point and Low Point, about 2.2 miles S. The head of Wedge Bay is divided into two smaller bays by Apex Point, located about 2.5 miles NE of Low Point. At the head of the S bay is White Beach, behind which are thickly-wooded hills. Brother and Sister, two islets, lies close off the beach.

Small vessels can find secure anchorage, in depths of 5.5 to 7.3m, about 0.5 mile S of Brother and Sister.

Parsons Bay, the N bay in Wedge Bay, is entered between Apex Point and a point about 0.5 mile NW. There is well-sheltered anchorage for small vessels in the inner part of the bay, in depths of 7.3 to 14.6m.

Nubeena (43°06'S., 147°45'E.), a small village, lies at the head of the bay. There is a pier off the village available to small vessels drawing up to 3m.

Wedge Island (43°08'S., 147°40'E.) lies about 0.5 mile WNW of Low Point. The W side of the island is composed of sheer basaltic cliffs rising to an elevation of 95m.

Quoin Channel, between Wedge Island and the mainland, has a fairway with a least depth of 10m over a width of about 0.2 mile and is clear of dangers, but during heavy S gales the sea often breaks across it.

Dart Bank (43°12'S., 147°42'E.) lies about 4.5 miles SSE of the S extremity of Wedge Island. The bank has a least depth of 21.9m near its center. With a S wind there is always a heavy swell over the bank.

Three Beach Bay is 0.6 mile wide and recedes 0.5 mile, with depths in the entrance of 29 to 33m and a depth of 14.6m about 0.1 mile off its shores and 0.2 mile off a pebble beach at its head. There are two more pebble beaches on the SE side of the bay. The SE shore is cliffy and kelp extends out to depths of 9.1m off the beaches.

Tunnel Bay (43°12'S., 147°44'E.) is entered between Tunnel Point and a bold, yellow, cliffy point about 0.5 mile to the NW. There are depths of 25.6m in its entrance and 18.3m midway inside, then the depths decrease gradually toward its head, which is formed by a number of large boulders. Midway between the beach and the N entrance point, which is a round bold yellow cliff, is a point, 100m SW of which is a rock that always breaks.

3.73 Raoul Bay (43°13'S., 147°46'E.) is entered between South West Point and Hill Rock, 2 miles SE. There are depths across the bay of more than 36.6m off Hill Rock, decreasing gradually to 23.8m off South West Point. Bartlet Rock and Burton Islet lie in the S part of the bay about 0.1 mile offshore.

Cape Raoul (43°14'S., 147°48'E.) is a cliffy headland that forms the S extremity of the Tasman Peninsula. Mount Raoul, a good landmark, rises about 2 miles N of the cape. Formed of high basaltic columns, the cape presents a very remarkable appearance; it falls in sheer cliffs from a plateau covered with dense scrub. About 0.2 mile NW of the cape these basaltic columns are separated from the cliff by a deep crevasse. Between the first column and Cape Raoul, there is a narrow neck of land composed of more columns which become more separated towards the cape. North of Burton Islet, the basaltic formation of the cliffs ceases.

Basket Bay (43°12'S., 147°51'E.) lies 3.5 miles NE of Cape Raoul and on the NW side of Maingon Bay. On the SW side of the W entrance point of the bay, there is a square cave which is conspicuous from the S and SW. From this point, a cliffy shore trends about 2 miles SW to a point, immediately S of which is a cliffy gully with caves at its head; about midway between these two points is a remarkable waterfall.

Black Rock, 9.1m high and steep-to, lies about 0.2 mile S of a point 0.5 mile W of West Arthur Head. Between Black Rock and the above unnamed point is an isolated rock, which always breaks.

3.74 Port Arthur (43°09'S., 147°52'E.), at the head of Maingon Bay, is entered between West Arthur Head and Budget Head, about 1.2 miles NE. Kelp extends off most of the

points inside Port Arthur to depths up to 18.3m; it always grows from a rocky bottom.

The E shore of the inlet is generally steep-to, but the W shore is indented by bays and coves, most of which afforded anchorage.

The entrance to the port is easily identified by Mount Brown, a long, flat, precipitous hill above West Arthur Head, which appears as an island against the land behind. On Budget Head, there is a remarkable pillar rock, which stands out alone when seen from the S, and above it is Arthurs Peak. The Budget, a small rock, 1.5m high, lies close offshore about 0.1 mile NW of the pillar rock.

Crescent Bay, on the W side of the entrance between West Arthur Head and Welch Point, about 0.5 mile N, always has too much swell in it to permit anchoring. Safety Cove lies about 1 mile NW of Welsh Point.

Anchorage may be obtained in the middle of the cove, in depths of 9.1 to 21.9m, but there is always a certain amount of swell.

The town of Port Arthur stands at the head of Mason Cove. There are two jetties and a slipway on the N side of the cove; another jetty is situated about 0.5 mile SSW of Commandants Point. A seaplane pontoon is also situated in the cove.

Carnarvon Bay (43°09'S., 147°51'E.), the best anchorage in Port Arthur, lies between Isle of the Dead and Frying Pan Point, about 0.5 mile NW. The bay has depths of 11 to 21.9m, sand and mud. Vessels anchor, in depths of 12.8 to 21.9m, off Mason Cove, a shallow inlet on the N side of Commandants Point.

Stewarts Bay lies between Frying Pan Point and Garden Point, the extremity of a peninsula with a long, flat, cleared top, about 0.4 mile NE.

A small vessel could find anchorage in this bay, in depths of 11 to 14.6m, but a rocky ledge and a shoal bank extend about 0.1 mile NNE from Frying Pan Point.

A submarine cable crosses the bay N from a point 0.1 mile W of Frying Pan Point. Its landing place on each shore is marked by a beacon.

3.75 Long Bay (43°08'S., 147°52'E.), at the head of Port Arthur, is entered between Garden Point and Evandons Point, and extends N for about 1.5 miles. For about 0.7 mile above its entrance, Long Bay has depths of not less than 9.1m; above this distance it becomes shallow and its head dries. Small craft can get within 0.5 mile of its head, where the village of Oakwood stands.

Denmans Cove lies on the E side of Port Arthur, about 3 miles N of Budget Head. Stinking Bay, at the head of which is a sandy beach, is entered between the N entrance to Denmans Cove and Evandons Point about 1 mile WNW. Stingaree Bay lies on the W side of Port Arthur, 1.2 miles W of Denmans Cove.

Cape Pillar (43°14'S., 148°02'E.) lies 10 miles ENE of Cape Raoul. The cape forms the SE extremity of the Tasman Peninsula and is the most remarkable headland on this coast, being formed of vertical columns of basalt rising to an elevation of 278m, and there forming a flat surface, the high land near the cape being for the most part without trees. According to determinations obtained in 1968, the coastline and topography in

the vicinity of Cape Pillar lie about 2 miles W of their charted positions.

Tasman Island, close S of Cape Pillar, is rocky, bare, rugged, and flat-topped. At its SW end is a remarkable semi-detached rock with two peaks, the gap between this rock and the island being perfectly straight and square. On one of the peaks is a large stone resembling a lighthouse on an E or W bearing. A light is shown on the SE side of Tasman Island.



Courtesy of www.adagiomarine.com

Tasman Island and Point Pillar from NE

Cape Pillar to Cape Tourville

3.76 The N side of Cape Pillar is cliffy, and cliffs continue round Munroe Bight, an indentation that is entered between Cape Pillar and Cape Hauy, about 5 miles to the N. Cathedral Rock lies close off the former cape. The Lanterns, a group of prominent rocks off the latter cape.

Hippolyte Rocks (Hippolyte Rocks) (43°08'S., 148°03'E.) lie about 2.2 miles ENE of Cape Hauy. They are comprised of two above-water rocks and some sunken patches. The passage between these rocks and between them and the coast is foul and should not be attempted.

Fortescue Bay, entered between Cape Hauy and a point about 1.5 miles NNW, recedes about 1.5 miles to a white sandy beach. It affords shelter only with offshore winds, as the Hippolyte Rocks in its approach are insufficient to protect it from seaward.

Pirates Bay (43°01'S., 147°56'E.) lies 6.5 miles NNW of Fortescue Bay. The bay recedes about 0.7 mile and has two sandy beaches, a small one in its S bight and a larger one along its W shore, the latter beach forming the E side of Eaglehawk Neck. The Clyde Islets lie about 1.5 miles NE of the neck.

From the N entrance point of Pirates Bay, the coast trends about 3.7 miles NE to **Cape Surville** (42°57'S., 148°00'E.). About 0.5 mile SE of this cape are The Sisters, a group of rocky islets. Mount Macgregor, with its double summit, lies behind this coast about 3 miles SW of Cape Surville. Between Cape Surville and High Yellow Bluff, about 1.7 miles N, the coast is steep and bordered by high rocks, and then for about 2

miles NW to Humper Bluff, it is bordered by above-water rocks and sunken rocks, and affords neither anchorage nor shelter as the sea breaks heavily on every part of it.

Lagoon Bay (Wilmot Cove) (42°53'S., 147°58'E.), which extends about 1.2 miles to the W, is entered between Humper Bluff and Cape Frederick Hendrick, about 0.7 mile to the N. The S shore of the bay is fronted by several rocks and islets, the largest and farthest offshore being the Kelly Islets, which lie off Humper Bluff. Rocks also extend E from Cape Frederick Hendrick.

North Bay is entered between Cape Frederick Hendrick and Cape Paul Lamanon, about 2.5 miles N. The bay recedes about 1.2 miles to a lagoon at its head. Visscher Island, which lies in the entrance to the bay, is too small to afford any protection from seaward.

3.77 Blackman Bay (42°52'S., 147°51'E.) is an extensive but shallow inlet which almost separates the Forester Peninsula from the mainland and which is connected with Norfolk Bay by the Denison Canal.

The bay is entered by way of Marion Narrows, on a lighted range bearing 207.5°; these beacons may not necessarily indicate the deepest water. The channel from Marion Bay to Blackman Bay is marked by beacons. Important places in the channel are marked by lighted beacons. Local knowledge of the channel is necessary. The channel from Marion Bay through Blackman Bay to the E end of Denison Canal had a least depth of 1.0m in 1998 in the vicinity of the No. 4 Beacon.

Cape Bernier (42°44'S., 147°57'E.) forms the N entrance point to Marion Bay. The cape is high and is remarkable on account of its conical shape. The S and E sides of the cape are steep-to.

Maria Island (42°40'S., 148°04'E.) lies off the mainland between Cape Bernier and Cape Bougainville, about 13 miles N, with Cape Peron, its S extremity, located about 3.5 miles E of Cape Bernier. The island is about 11 miles long and is nearly divided into two parts by Riedle Bay on the E side and Oyster Bay on the W, with only a low sandy isthmus between them. The village of Darlington stands at the N end of the island.

Cape Peron, the SW extremity of Maria Island, is a bold headland, off of which lies three rocks. The outer rock, known locally as the Boy in the Boat, is a small steep-to pinnacle, 0.6m high, lying about 0.4 mile S of Cape Peron; the middle rock is 1.8m high. Pyramid Rock, the inner rock, is 36m high and lies close to the cape.

Riedle Bay (42°41'S., 148°05'E.) is about 2 miles wide at its entrance, from which it recedes about 1 mile.

The bay affords anchorage for vessels remaining any length of time, being entirely exposed to the wind and sea from NE to S. There are depths of 16.5 to 27.4m in its SW part; in its NE part, the depths are from 9.1 to 11m.

Mistaken Cape forms the E extremity of Maria Island and lies about 3.5 miles ENE of Riedle Bay. According to determinations made in 1968, the cape lies about 2 miles W of its charted position. The cape has been reported to give good radar returns up to 13 miles.

3.78 North Islet (42°34'S., 148°04'E.) lies about 0.5 mile N of the N extremity of Maria Island. Bird Rock and foul

ground lie between the islet and the island. A light is shown from the summit of North Islet.

Oyster Bay lies on the W side of Maria Island and is about 1.2 miles wide at its entrance. The greatest depth in the bay is not more than 6.4m and it generally does not exceed 3.6 to 5.5m. The bay is separated from Riedle Bay by a narrow isthmus.

Mercury Passage (42°40'S., 148°00'E.), between Maria Island and the mainland, is only available to vessels with local knowledge whose draft does not exceed 6.4m. The passage is about 3.5 miles wide at both its S and N entrance, but midway it is narrowed to a width of about 1 mile between Lachlan Islet and the rocks around it. There are depths of 14.6 to 16.5m in midchannel off Oyster Bay, 12.8m about 2 miles N of Lachlan Islet, and 34.7m in the N entrance channel.

Lachlan Islet (42°39'S., 147°58'E.) lies in the middle of Mercury Passage, near its N entrance. The islet is triangular in shape and covered with grass. There is a small reef of rocks about 0.1 mile to the NW of the island. The channel W of the islet has a least depth of 2.1m and only small vessels should attempt it. A light is shown on the summit of the islet.

Prosser Bay indents the mainland for 1.2 miles between Luther Point and **Meredith Point** (42°33'S., 148°55'E.), about 1 mile NNE. The bay is shallow and useless for any but small vessels.

A vessel may find anchorage off its entrance, in a depth of 14.6m, but would not be sheltered from S winds which, in this locality, are violent. East gales cause a dangerous sea in this bay.

There is a jetty, with a depth of 2.4m at its head, on the S side of the bay about 0.5 mile WSW of Luther Point.

The Prosser River, which flows into the middle of the head of the bay, is obstructed at its mouth by a bar with a depth of 0.6m. On the S side of the entrance to this river is the village of Orford. A bridge spans the river about 0.4 mile above its entrance.

3.79 Spring Bay (42°33'S., 147°56'E.) (World Port Index No. 54725), so called from a spring on its E side, is entered between Meredith Point and Freestone Point, about 1 mile E. There are depths in the bay of over 11m from its entrance to nearly 1.5 miles within the bay, which has good holding ground of mud and is completely sheltered from wind and sea. A light is shown from the head of a jetty, situated about 0.4 mile N of Meredith Point.

Spring Bay Wharf is situated about 0.2 mile NNW of Freestone Point. It extends 137m WSW to a T-head, 244m in length, with a least depth of 10.6m alongside. It is used exclusively to load wood chips.

Pilotage.—Pilots board incoming vessels 0.5 mile SW of Freestone Point. Pilotage is compulsory for ships 35m in length or over. Ships requiring a pilot should notify the Harbor-master, Hobart, at least 24 hours in advance, confirming or amending the ETA at least 7 hours before arrival at the pilot boarding position.

Regulations.—A restricted area, with a radius of 300m, is declared around any vessel engaged in, or assisting with, the shipment of wood chips, when within the limits of the port of Spring Bay.

Spring Bay is a first port of entry. The quarantine line lies across the entrance to the bay; the quarantine anchorage is within 0.3 mile of a position 0.5 mile W of Freestone Point.

Anchorage.—There is a very good anchorage at the entrance to Spring Bay, in depths of 11 to 14.6m, sand. Lights, in line bearing 359°, lead up the bay to the wharf. The channel to the N end of the bay requires local knowledge.

A submarine pipeline crosses the bay from close N of Ali-ginates Jetty to Paddy's Point. Anchoring is prohibited 50m on either side of the pipeline.

3.80 Okehampton Bay (42°32'S., 147°58'E.) lies 2.5 miles E of Spring Bay and is entered between Point Home Lookout and Lords Bluff, 2.2 miles NE. Sunken rocks extend about 0.7 mile from the bluff. A light is shown on Point Home Lookout.

Cape Bougainville (42°31'S., 148°00'E.) lies 3 miles NE of Point Home Lookout. The cape is a double point about 1 mile wide, projecting 1 mile to the SE from the coastline.

From Cape Bougainville, the coast trends N for about 5 miles to the SE entrance point of Grindstone Bay, a small inlet trending to the W. Between the bay and **Point Bailly** (42°21'S., 148°01'E.), about 6 miles N, the coast forms a bight across which there are depths of from 25.6 to 29.3m. On the S side of Point Bailly are some above-water rocks extending about 0.7 mile SE, with depths of 18.3m close outside them.

Iles Des Phoques (White Rock) (42°25'S., 148°10'E.), lying about 7 miles ENE of Grindstone Bay, is a sterile rock with depths of 21.9m close S of it and from 43.9 to 47.5m between it and the shore. Schouten Island lies about 11 miles E of Point Bailly. A light is shown on the S side of the island.

Schouten Passage, which separates Schouten Island from the S point of the Freycinet Peninsula to the N of it, is about 0.5 mile wide across its narrowest part, with apparently no dangers other than a small above-water rock, close off the S point of the peninsula. A shoal, with a depth of 9.1m, was reported to lie 1.5 miles WNW of the S extremity of the peninsula.

3.81 Great Oyster Bay (42°12'S., 148°10'E.) is formed on the E side by Schouten Island and the Freycinet Peninsula and on the W side by the coast extending N from Point Bailly. Depths in the bay are from 12.9 to 20.1m. Little Swanport, the entrance to which lies on the W side of the bay about 2 miles N of Point Bailly, is only available to boats.

Swansea (42°09'S., 148°05'E.) lies on the W side of Great Oyster Bay, about 1.5 miles S of the head of the bay. The port consists of a jetty, with a depth of 2.4m alongside its head. The head of the bay is made up of a low tongue of land, with an opening at its E end, which leads into a shallow lagoon.

Promise Bay (42°11'S., 148°16'E.) lies on the E side of Great Oyster Bay and is entered between Weatherhead Point, the W extremity of the Freycinet Peninsula, and Fleuieu Point, about 4 miles N. Refuge Islet lies about 0.7 mile S of Fleuieu Point on the edge of a spit of foul ground. Good anchorage may be found S of the islet.

The Freycinet Peninsula is 6 miles long, S to N, and 3.5 miles wide at its broadest part; it then gradually narrows to Cape Degerando, its S point. Cape Forestier, the N end of the peninsula, has been reported to give good radar returns up to 18 miles. An isthmus connects the Freycinet Peninsula to a small one called The Hazards, about 1 mile NNW.

Cape Tourville (42°07'S., 148°21'E.) lies 3.5 miles N of Cape Forestier and shows a light. The cape is high and projects 0.5 mile SE from the coast. Sleepy Bay lies on its S side and The Nuggets, a group of islets and rocks, extend about 1 mile NE of it.

Cape Tourville to St. Helens Point

3.82 Bluestone Bay is an indentation about 2 miles NNW of Cape Tourville. About 3 miles NNW of this bay there is a double headland with a small islet on its W side, and about 1.2 miles NW of this islet there is a larger islet, between which the latter and Moulting Lagoon the land rises to Mount Peter. About 5 miles N of the above N islet, Butler Point projects about 0.5 mile SE from the coast and between this point and Cape Lodi is Courland Bay.

Bicheno (41°52'S., 148°18'E.), a small town, lies about 2.5 miles NNW of Cape Lodi. There is a wooden jetty off the town, with a depth of 2.4m alongside. Waubs Harbor lies close N of the town and Diamond Islet lies about 1 mile farther NNW.

Maclean Bay is entered between the E entrance point of Waubs Harbor and Long Point, about 7.2 miles N. The Douglas River enters the sea about 2.5 miles SSW of Long Point.

Long Point (41°45'S., 148°18'E.) is a small peninsula with a small bight on either side of the isthmus which connects it with the mainland; about 0.5 mile NW of the extremity of this peninsula there is an inlet which has a narrow entrance and which trends N parallel with the coast. The village of Seymour is situated at the point. There is a coaling jetty here, with a least depth of 7.3m alongside.

Between Long Point and **St. Patricks Foreland** (41°35'S., 148°20'E.), about 10 miles N, are Picaninny Point and Saltwater Inlet, about 3 and 5 miles N of Long Point. St. Patricks Foreland and the coast for about 2 miles N of it are bordered by a reef. There are depths of 18.3m close N of the foreland. St. Patricks Head, 678m high, is a conspicuous mountain.

3.83 Paddys Islet (41°24'S., 148°18'E.) lies about 10 miles N of St. Patricks Foreland and 0.5 mile offshore. Depths of less than 9.1m extend about 0.7 mile E from the islet. Pulfers Bank, with a depth of 7.3m, lies about 3.5 miles SE of Paddys Islet. St. Helens Island lies about 3.5 miles NNE of Paddys Islet. Rocks, awash, lie close N and S of its E extremity. In case of necessity, a vessel might anchor, in a depth of 21.9m, between this island and the coast. Middle Ground, with a depth of 8.8m, lies 1 mile S of St. Helen's southernmost rocks.

St. Helens Point (41°17'S., 148°21'E.) is the N end of a long and comparatively narrow tongue of land, on which there is a continuous ridge of hills, extending NNE to Bare Top Hill, which is about 0.5 mile within the point. Brooker Rocks lie on the seaward end of a spit of foul ground which extends about 1.2 miles SE from St. Helens Point. Merrick Rock, with a depth of 3.7m, lies about 1 mile E of the point. A buoy is

moored 1.5 miles SE of Merrick Rock. A light is shown on Bare Top Hill.

Georges Bay (41°19'S., 148°17'E.) is an extensive harbor with deep water inside a shallow entrance channel, which lies on the W side of a tongue of land terminating in St. Helens Point. The outer part of this channel is mostly obstructed by shallow banks which extend from either shore and form a bar, the channel across which is liable to change and is only available to small vessels with local knowledge. The channel is marked by beacons and buoys, which are moved as the bar changes. Georges Bay is divided into three parts. Its main basin lies immediately W and S of the inner end of the entrance channel, and into its W side, N of McDonald Point, about 2 miles SW of Atkins Point, flows the Georges River, a shallow stream. Moulting Bay, the N arm of the bay, extends N from W of the inner end of the entrance channel. The SW arm of the bay extends about 2 miles W of the SW end of the main basin to the Jasons Gate Bridge. Drying mud flats front the shores of these water areas, and Oyster Patch, with a least depth of 1.8m, lies in the SW arm, about 1 mile SSW of McDonald Point. The existence of this patch is doubtful.

St. Helens (41°19'S., 148°15'E.) lies on the N side of the SW arm of the bay. A wharf and two small T-headed jetties front the village, and another T-headed jetty is situated about 0.2 mile E of the Jasons Gate Bridge.

St. Helens Point to Eddystone Point

3.84 Grant Point (41°16'S., 148°20'E.) lies about 1.5 miles NW of St. Helens Point and forms the N entrance point of Georges Bay. The point is rocky and about 0.3 mile NE of it is Elephant Rock. From Grant Point, the coast trends about 3.5 miles W and N to a point, close off of which lies an above-water rock. The entrance to Binalong Bay, which branches SW and W, lies about 1.7 miles W of Grant Point, with Skeleton Bay between it and that point.

The Gardens are some sunken patches lying near the coast and about 5 miles N of Binalong Bay. Garden Lagoon, a small inlet, lies about 1 mile NNW of The Gardens. From the lagoon, the coast trends about 5 miles N to the entrance to Anson Lake, in the S part of Bay of Fires. Depths of less than 9.1m extend about 0.6 mile ENE from the entrance to the lake. The entrance to the lake is so narrow that it cannot be seen from seaward and it scarcely permits passage of a boat at HW. Outside the entrance to the lake, a heavy, dangerous surf, generally pounds the beach.

Bay of Fires (41°02'S., 148°20'E.), with a depth of 9.1m about 0.3 mile offshore, extends from the entrance to Anson Lake to Eddystone Point, about 4.5 miles NNE. An 11.9m rocky patch lies about 1.2 miles SSE of Eddystone Point.

Anchorage may be obtained, in a depth of 18.3m, near the center of the Bay of Fires, which affords good shelter when the wind is steady from the W, but should be left immediately if the wind shifts to the SE.